ACTUARIAL VALUATION

STATE LAW ENFORCEMENT RETIREMENT PROGRAMS

(authorized by Senate Bill No. 493
passed by the 1974 Legislature)

PART I: Actuarial Analysis, October 3, 1974
PART II: Valuation and Recommendations on Consolidation, November 15, 1974
PART III: Proposed Legislation

REPORT TO THE
FORTY-FOURTH LEGISLATURE
1975

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ACTUARIAL ANALYSIS

OF

THE RETIREMENT SYSTEMS

FOR

PUBLIC EMPLOYEES IN THE HAZARDOUS OCCUPATIONS

OF

FIRE PROTECTION AND LAW ENFORCEMENT

October 3, 1974

HENDRICKSON, BIRD & McKOSKEY, INC.
Actuaries • Pension Consultants

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SECTION 1

INTRODUCTION

As a result of the 1973 Interim Study by the Joint Committee on State Administration, Senate Bill No. 493 was passed to provide for a study of the retirement systems of public employees in the hazardous occupations of fire protection and law enforcement. The study encompassed the following retirement systems:

a) Municipal Police Officers Retirement Systems established under Section 11-1823, R.C.M. 1947.
b) Firemen's Relief Association Disability and Pension System established under Section 11-1910, R.C.M. 1947.
c) Game Warden's Retirement System established under Section 68-1403, R.C.M. 1947.
d) Highway Patrolmen's Retirement System established under Section 31-202, R.C.M. 1947.
e) Sheriff's Retirement System established under Section 68-2601, R.C.M. 1947.

A key objective of the study was an analysis of the present systems with recommendations as to their consolidation. In preparing this analysis, four basic principles were assumed:

1) The benefits should provide reasonable, but not excessive, financial security to the members and their dependent beneficiaries.
2) The benefits should be provided at a minimum cost to the tax payers and the members.
3) The benefits should be uniform and equitable among the members of the various retirement programs.
4) For moral and legal reasons, any reduction in benefits would only apply to members hired after June 30, 1975.

The enclosed report is a summary of our study including comments and recommendations.

Death Benefits	
Non-service death prior to retirement	Same as "Retirement Allowance" payable to member's widow or surviving minor children. If no widow or surviving children, the member's accumulated contribution to his beneficiary or estate.
Service connected death prior to retirement	Same as "Non-service death" above.
Death after retirement	Same as "Normal Form" above.
Withdrawal Benefits	Return of contributions without interest.

SECTION 2
Metropolitan Policemen
Summary of Benefits and Contributions

The benefit and contribution provisions are summarized briefly below for reference purposes. This summary outlines the major provisions of the law. It does not attempt to cover all of the detailed provisions.

<u>Effective Date</u>	July 1, 1927
<u>Member's Contributions</u>	6% of salary
<u>County's Contributions</u>	11% of active policemen's salaries - payable monthly by cities & towns.
<u>State Contributions</u>	10% of active firemen's salaries.
<u>Normal Retirement Allowance</u> Age and service requirements	a) If first employed on or before 7-1-75, 20 years of service. b) If first employed after 7-1-75, age 50 with 20 years of service.
Mandatory retirement	Age 65.
Amount of monthly allowance	50% of highest monthly base salary during his latest year of active service, plus 1% per year of such monthly base salary for each additional year of service in excess of 20 years, subject to a maximum of 60% of such monthly base salary. Retirement allowances payable July 1, 1975 shall be increased by 1/2 of the percentage increase in the base index change (1975-1959=100) during the period 1970-1974, or from year preceding retirement to 1974, whichever is less.
Normal form	Joint and full (maximum 50%) to survivor. Cost of living clause as above.
<u>Involuntary Retirement Allowance (Vested Benefit)</u> Service requirement	If services discontinued prior to completion of 10 years of service, return of accumulated contributions without interest. If services discontinued on or after completion of 10 years of service, return of the aggregate of accumulated contributions with interest.

Disability Retirement Allowance Service connected disability	50% of highest monthly base salary during his latest year of active service.
Other disability prior to 10 years of service.	Return of accumulated contributions without interest.
Other disability after 10 years of service.	Return of accumulated contributions with interest unless eligible to retire as of the date of disability.
Death Benefits Non-service connected death prior to retirement	50% of highest monthly base salary during his latest year of active service, payable to surviving spouse or minor children. Survivorship annuities payable July 1, 1975 shall be increased by 1/2 of the percentage increase in the base index change (1957-1959=100) during period 1970-1974 or from year preceding members death to 1974, whichever is less.
Service connected death prior to retirement	Same as non-service death above.
Withdrawal Benefits	See involuntary retirement allowance above.

SECTION 2
Highway Patrolmen
Summary of Benefits and Contributions

The benefit and contribution provisions are summarized briefly below for reference purposes. This summary outlines the major provisions of the law. It does not attempt to cover all of the detailed provisions.

Effective Date
The effective date of the retirement plan was June 1, 1945.

Member's Contributions
Six percent of salary for the first twenty-five years of service.

State Contributions
15% of patrolmens' salary payable from the motor vehicle drivers license fees collected by the State of Montana.

Normal Retirement Allowance	
Age and service requirements	20 years of service
Mandatory retirement	Age 60.
Amount of allowance	Total retirement allowance is equal to 2% of final salary for each of the first 25 years of service, plus 1% for each year in excess of 25. Increase in 1974, for those currently receiving benefits, equal to 50% of the increase in the CPI from date of retirement, disability or death to 1973. Final salary is the highest average annual compensation for three consecutive years of service during which employee contributions are made.
Normal form	A full cash refund annuity; i.e. a life annuity plus a death benefit equal to the excess of the value of the retirement allowance as of his retirement date over the sum of all benefits paid to the date of death.
Optional form	An actuarial equivalent of the normal form according to the mortality and interest bases adopted by the retirement board.
Involuntary Retirement Allowance (Vested Benefit)	10 years of service.

Amount of allowance	The member's choice of a cash refund annuity which is the actuarial equivalent of his accrued retirement allowance, or a single sum payment of his accumulated contributions with interest.
Disability Retirement Allowance Service connected disability	A cash refund annuity which is equal to 50% of the final average salary.
Other disability	A cash refund annuity which is the actuarial equivalent of the accrued retirement allowance.
Death Benefits Non-service death prior to retirement	The beneficiary's choice of an annuity which is the actuarial equivalent of the accrued retirement allowance, or a single sum payment of the member's accumulated contributions with interest.
Service-connected death prior to retirement	An annuity to the beneficiary of 50% the member's final average salary, less any amount payable under Workmen's Compensation Act.
Withdrawal Benefits	Return of contributions without interest.

SECTION 2
Sheriffs' Retirement System
Summary of Benefits and Contributions

Effective Date	July 1, 1974
Member's Contributions	7% of salary
County's Contributions	7.55% of salary
State Contributions	Administrative expenses
Normal Retirement Allowance	
Age and service requirements	Age 55 with 25 years of service.
Mandatory retirement	Age 65, except for elected sheriffs and undersheriffs.
Early retirement allowed	Age 55 with 20 years of service.
Amount of allowance	2% of final salary X years of service. Maximum 50%, except for members who have contributed for more than 25 years, the amount above plus twice the actuarial equivalent of his contributions after 25 years of service.
Normal form	Life annuity with payment of balance of accumulated deductions not received by the member as of the date of his death (modified cash refund annuity).
Optional form	1) Joint and survivor annuity, i.e. a life annuity to the member with benefits continued to his beneficiary for the rest of her life, if his death precedes hers after retirement. The amount of such survivor's annuity may be either equal to the member's annuity (full survivor) or equal to 1/2 the member's annuity (1/2 survivor). 2) Any other method of distribution, which is the actuarial equivalent of the member's retirement allowance, requested by the member and approved by the board.
Involuntary Retirement Allowance (Vested Benefit)	
Service requirement	10 years of service

Amount of allowance	Either: 1) his accumulated deductions with interest, or 2) an annuity which can be provided by his deductions and the county's contributions.
<u>Disability Retirement Allowance</u>	
Service connected disability	A monthly annuity equal to 50% of his final average salary.
Other disability	A monthly annuity in an amount which can be provided by his accumulated deductions and the county's contributions.
<u>Death Benefits</u>	
Non-service death prior to retirement	Either a lump sum payment of his accumulated deductions with interest, or the actuarial equivalent of 2% of final average salary for each year of service, with a maximum of 25 years.
Service connected death prior to retirement	50% of final average salary less any amounts payable under the Workmen's Compensation Act. Amounts are payable until the later of 1) the date the member would have reached age 65, or 2) the date 15 years after the member's death.
Death after retirement	None, other than may be payable under the normal form or an optional form, if elected.
<u>Withdrawal Benefits</u>	
Eligibility	Termination of service with less than 10 years of service.
Amount of benefit	Return of contributions with interest.

SECTION 2
Game Wardens
Summary of Benefits and Contributions

The benefit and contribution provisions are summarized briefly below for reference purposes. This summary outlines the major provisions of the law. It does not attempt to cover all of the detailed provisions.

Effective Date
The effective date of the retirement plan was July 1, 1963.

Member Contributions	Contributions of 7% of salary are required for the first twenty-five years of membership. Contributions after that time are on an optional basis.
Employer Contributions	7% of payroll payable from Fish and Game monies.
Service Retirement Allowance	
Age and service requirements	Age 55 and 20 years of service.
Mandatory retirement	Age 60.
Amount of allowance	Total retirement allowance is equal to 2% of final salary for each year of service to a maximum of 25 years of creditable service. The final salary is the average annual compensation received by the member for any three consecutive years of service during which employee contributions are made. Members who continue to contribute after 25 years of service earn an additional allowance equal to twice the annuity provided by such accumulated additional contributions with interest.
Normal form	A full cash refund annuity with the death benefit equal to the present value of the retirement allowan at the date of retirement less all retirement benefits paid to date.
Optional form	An actuarial equivalent of the normal form, according to the mortality and interest basis adopted by the retirement board.

Involuntary Retirement Allowance (Vested Benefit)	
Service requirement	10 years of service.
Amount of allowance	The member's choice of a cash refund annuity which is the actuarial equivalent of the accrued retirement allowance or a single sum payment of his accumulated contributions with interest.
Disability Retirement Allowance	
Service connected disability with 10 years of service	A cash refund annuity which is equal to 1/2 of the final average salary.
Other disability	A cash refund annuity which is the actuarial equivalent of the accrued retirement allowance.
Death Benefits	
Non-service death prior to retirement	The beneficiary's choice of an annuity which is the actuarial equivalent of the accrued retirement allowance, or a single sum payment of the member's accumulated contributions with interest.
Service connected death prior to retirement	An annuity to the beneficiary of to 1/2 the member's final average salary less any amount payable under Workmen's Compensation Act, payable for 15 years or until the beneficiary is age 65 whichever is longer.
Death after retirement	Payable according to the option elected.
Withdrawal Benefits	Return of contributions without interest.

SECTION 3
BENEFIT STRUCTURES: ANALYSIS AND RECOMMENDATIONS

Retirement Allowance: Under current legislation, policemen and firemen can retire at 50% of salary after 20 years of service, with an additional 1% added for each year of service over 20, subject to a maximum retirement income of 60% of final salary. All firemen, and policemen hired July 1, 1975 or later, must be at least 50 years of age to retire. Highway patrolmen, sheriffs and game wardens can retire at 50% of salary after 25 years of service. Highway patrolmen and sheriffs can earn additional retirement credits for years of service over 25. Sheriffs and game wardens must be age 55 to retire.

Because of the extra hazards and physical rigors of their jobs, policemen and firemen are commonly allowed to retire at an earlier age than persons in other hazarding occupations. To accomplish this objective, and yet achieve maximum uniformity, we recommend the retirement allowance for all retirement systems determined as follows:

Policemen and Firemen: 50% of final salary after 20 years of service, plus 1% for each year of service beyond 20, subject to a maximum of 60% of final salary. Minimum retirement age 50. Mandatory retirement age 65.

Highway Patrolmen, Sheriffs and Game Wardens: 50% of final salary after 25 years of service, plus 1% for each year of service beyond 25, subject to a maximum of 60% of final salary. Retirement allowed after 20 years of service with a proportionate reduction of benefits. Minimum retirement age 50. Mandatory retirement age 65.

Form of Retirement Allowance: Under current legislation, policemen and firemen receive their retirement income as long as they are alive, their spouse is alive, or their children are alive but under age 18. The highway patrolmen and game wardens receive their retirement income as long as they live, and, at their death, a cash payment is made of the excess, if any, of the value of the retirement allowance at retirement over all retirement benefits paid to the date of death. Sheriffs receive their retirement income as long as they live, and, at their death a cash payment is made of the excess, if any, of their accumulated deductions at retirement over all retirement benefits paid to the date of death.

The cash refund form of retirement allowance has three disadvantages: (1) If a person retires at a relatively young age, and if death occurs shortly after retirement, payment to the beneficiary of the remaining value of the retirement allowance can create a huge financial windfall for the beneficiary, (2) Placing a large amount of cash in the hands of a person who may be inexperienced in financial matters can lead to the loss of the funds required for that beneficiary's future support. (3) Because the cash refund is automatic, the payment may be made to a disinterested party if the deceased had no dependent beneficiaries. The cash refund form may be less costly to provide than the life income continuing to survivors as provided to policemen and firemen. This would not be true if the deceased member had no wife or children under age 18.

The one shortcoming in the income form provided the policemen and firemen is that it does not provide that, if the retiree is deceased, and if his widow is deceased, and if the only surviving child is over 18 years of age but is physically or mentally disabled such that he cannot provide for his own welfare, such dependent child would continue to receive the income as long as he lives and is disabled.

We recommend that the form of retirement allowance specified in all five systems be as follows: The income shall continue undiminished to the retiree as long as he shall live, and at his death continue to his widow as long as she shall live and does not re-marry and, if the spouse be deceased, to the children of the retiree as long as they live and have not attained age 18, except that, if one or more of the surviving children be physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled.

Vesting: Current legislation established for all five systems provides no vesting during the first 20 years but 100% vesting at the end of the 20th year. As an example, it appears inequitable to grant no benefits to a person terminating after nineteen years of service, while granting 100% of all benefits to another person terminating after twenty years of service. A graduated vesting schedule would eliminate the discrepancy.

We recommend that the following vesting schedule be incorporated into all five systems:

Complete Years Of Service At Termination	Percent of Benefits Accrued At Termination-Payable At Normal Retirement Age
9 or less	0%
10	25
11	30
12	35
13	40
14	45
15	50
16	60
17	70
18	80
19	90
20 or more	100%

Withdrawal: Current legislation established for the five systems provides for the return of the members contribution at withdrawal with interest in some cases, without interest in others. Because employee contributions are mandatory a member should never get back less from a system than what he has personally contributed to it with interest commensurate with the average investment earnings of the fund.

We recommend that all five systems specify that: In no event shall any member of this retirement system receive less in compensation from this system, either in regular monthly income payments or as a lump sum, than the total of all contributions he has personally made to this system, together with such reasonable interest return on such contributions each year as shall be determined by the Board of Trustees.

Disability Benefits: Current legislation provides that policemen and firemen receive 50% of their salary, or the accrued retirement benefit if higher, if disabled in the line of duty. No relief is provided if disability occurs as a result of a non-occupational injury or sickness. Thus, if a fireman suffers a disabling heart attack while at work he is protected. If the heart attack occurs at home, he is unprotected. Highway patrolmen, sheriffs and game wardens receive 50% of salary if disabled in the line of duty (and after 10 years of service in the case of game wardens). However, if disabled off the job they receive only the actuarial equivalent of the retirement benefits accrued to the date of disability. For younger men this actuarial equivalent might amount to no more than five or ten percent of salary.

In accordance with the principle that the employee, his wife and children should receive adequate financial support, we feel that an adequate disability benefit should be provided regardless of length of service or whether or not the disability occurs on the job. This would operate to increase the cost of providing disability benefits.

In accordance with the principle that the benefits should not be excessive we feel that a schedule should be used to reduce disability payments if the disabled member earns substantial income from other employment. This would operate to reduce the cost of providing disability benefits.

We recommend that the disability benefit provided under all five systems be as follows: Any active employee who becomes totally and permanently disabled from any cause, excepting intentional self-inflicted injury, shall receive a monthly income equal to 50% of his regular monthly salary at the time of disability, or the retirement income accured at time of disability, if greater. If the income earned by the disabled employee in any calendar year, when added to the disability income received by the disabled employee from his retirement system, exceeds the annual salary payable in that calendar year to an employee with the same job classification and number of years of service as the disabled employee had at the date of disability, then the disability income otherwise payable for the succeeding plan year shall be reduced by the amount of any such excess.

Death Benefits: Current legislation provides a life income to the wife or children of a policeman or fireman upon his death, equal to 50% of his salary at the time of death or his accrued retirement income at time of death, if greater. These benefits are provided whether death is job related or not.

Survivors of highway patrolmen receive 50% of salary at time of death if death occurs in the line of duty. Otherwise they receive the actuarial equivalent of the retirement income accrued at the time of death. A similar package is provided sheriffs and game wardens except the 50% of salary provided in event of death in the line of duty is limited to the widow's age 65 or 15 years, whichever is greater.

As noted previously, in the case of a younger employee, the actuarial equivalent of the retirement income might well be no more than five or ten percent of salary. This is particularly inappropriate as the younger employees with young families generally have the greatest financial responsibilities.

In accordance with the principle that employees and their survivors should always have adequate financial support, we feel that an adequate death benefit should be paid regardless of the cause of death or the years of service of the employee. This would operate to increase the cost of providing death benefits.

We recommend that the death benefit provided under all five systems be as follows: If any active employee dies from any cause, a monthly income equal to 50% of his salary at the time of death, or his accrued retirement income if greater, shall be paid to his widow as long as she is alive and does not remarry, and if the widow be deceased, to the children of the deceased employee as long as they live and have not attained age 18 except that, if one or more of the surviving children be physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled.

SECTION 4
FUNDING MECHANISMS: ANALYSIS AND RECOMMENDATIONS

Funding

The highway patrol, sheriffs and game wardens each have their own financial pool covering all members. The policemen are currently split into 19 separate financial pools and the firemen are split into 13 financial pools, according to cities, towns or municipalities. In order to minimize the risk of insolvency of the small financial pools, the existing small pools for the policemen and firemen should be combined into two large pools, one for each system.

Contributions must, of course, be tied to the benefits provided by the particular system involved. Such contributions will vary between the five separate systems because: (1) the different occupations involve different experience on mortality, disability, termination from service, salary scale increases, etc.; (2) the different systems may provide different benefits; and (3) some systems are in better financial condition than others.

In order to create large enough financial pools to assure solvency, and at the same time recognize the different contribution levels required by each system, we recommend that five separate retirement accounts be set up, one for each retirement system. Contributions to each account should be expressed as a percentage of salary. The total contribution to each account should be such as to pay the normal cost of the system each year and amortize the unfunded liability over a reasonable period.

In the past, contributions to the policemen's and firemen's retirement systems from the cities and municipalities have been made on a mill basis. Each city or municipality has varied the number of mills contributed. As of July 1, 1974, municipalities began contributing 11% of each policeman's salary to its policemen's retirement system.

In regard to the policemen and firemen, there are substantial differences in the financial condition of the retirement systems between the various cities and municipalities. In order to be equitable, we feel that these differences must be recognized in some fashion in the future contributions made by these cities and municipalities. Therefore, we recommend that variations in the current funding level between the various cities and municipalities, as determined from the actuarial valuation, be amortized over a specified period such as twenty years. Thus a city whose funding level is below average would be required to pay a specific extra charge each year for the next twenty years as an adjustment for under-funding in the past. A city whose funding level is above average would receive a specific extra credit for the next twenty years as an adjustment for funding above average in the past. After twenty years, all cities and/or municipalities would contribute the same percentage of salary to a particular fund.

We recommend that employees under all five systems, hired on or after July 1, 1975, contribute 7% of salary while an active member of the retirement system and accruing retirement benefits.

SECTION 5
Administration: Analysis and Recommendations

The administration of the retirement systems encompasses three areas: investments, record keeping and policy making.

Investments

An important goal of any retirement system should be to maximize investment performance and minimize risks and expenses. Presently each of the police and firemen funds are invested individually. The highway patrol, sheriffs and game wardens funds are commingled with other assets of PERS and invested as such. We feel that the funds of all five systems should be invested by a central board. This would have several advantages:

1) investment risk would be minimized;
2) large investments would allow reduced investment expenses;
3) expert advice would be available on a continual basis;
4) the investment performance would hopefully be improved.

As of January 1, 1975, all funds will be handled by the state board of investments. This change will accomplish the above objectives.

Record Keeping

The highway patrolmen's, game wardens' and sheriffs' retirement systems are administered by the Public Employees Retirement Division and thus have access to its record keeping facilities. Each policemen's retirement systems is administered by the local city clerk; each firemen's retirement system designates a fireman for this purpose.

While it would be possible for each police and firemen system to maintain the necessary records in proper order, we feel that it is important that a check and balance system be established. This would require that a monthly report be made to a central department. Because of its staffing and computer facilities, we recommend that the Public Employees Retirement Division be the central record keeping department for all funds. This arrangement would not only assure that proper records are being kept, but would also provide the necessary check and balance on all accounts.

Policy Making

The PERS Retirement Board presently makes all decisions for the highway patrolmen's, game warden's and sheriff's retirement systems. The board is comprised of three members from the public retirement systems and two members at large. These members are appointed by the governor.

The Board of Trustees of each policemen's retirement system is comprised of the mayor, clerk, city attorney, and two policemen. The Board of Trustees of each firemen's retirement system is comprised of the fire chief, president of the association, and five other members of the fire department.

We feel that a single board should serve all five systems. This arrangement would assure uniformity in decisions such as the extent of individual disabilities. The board would also serve as a central body for proposing and supporting legislative changes and amendments in the retirement law, and thus maintain uniformity among the systems.

Because retirement, disability and death benefits are of unique significance to those persons employed in hazardous occupations, we feel that the board of trustees for these five retirement systems should be separate from the board serving other public employee retirement systems. As such, we recommend that a five member board be established to serve this purpose. The board would be comprised of one representative of the firemen's system, one representative of the policemen's system, one representative from the remaining three systems and two representatives appointed at large. All members would be appointed by the governor.

SECTION 6
Summary of Recommendations as to Consolidation of the Various Systems

The pension, death and disability program recommended here is intended to apply only to employees hired on or after July 1, 1975. Persons covered under existing programs would be allowed the benefits as provided under their existing programs, or those provided under the new program, whichever is more beneficial to them in the particular circumstance. It is recommended that only one new piece of legislation be written to cover all five systems.

RETIREMENT SYSTEM FOR PUBLIC EMPLOYEES IN HAZARDOUS OCCUPATIONS

Retirement Allowance:

Policemen and Firemen: 50% of final salary after 20 years of service, plus 1% for each year of service beyond 20, subject to a maximum of 60% of final salary. Minimum retirement age 50. Mandatory retirement age 65.

Highway Patrolmen, Sheriffs and Game Wardens: 50% of final salary after 25 years of service, plus 1% for each year of service beyond 25, subject to a maximum of 60% of final salary. Retirement allowed after 20 years of service with a proportionate reduction of benefits. Minimum retirement age 50. Mandatory retirement age 65.

Form of Retirement Allowance - All Occupations:

Income shall continue undiminished to the retiree as long as he shall live, and at his death continue to his widow as long as she shall live and does not re-marry and, if the spouse be deceased, to the children of the retiree as long as they live and have not attained age 18, except that, if one or more of the surviving children be physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled.

Vesting - All Occupations:

Complete Years Service At Termination	Percent of Benefits Accrued At Termination-Payable At Normal Retirement Age
9 or less	0%
10	25
11	30
12	35
13	40
14	45
15	50
16	60
17	70
18	80
19	90
20 or more	100%

Withdrawal - All Occupations:

In no event shall any member of this retirement system receive less in compensation from this system, either in regular monthly income payments or as a lump sum, than the total of all contributions he has personally made to this system, together with such reasonable interest return on such contributions each year as shall be determined by the Board of Trustees.

Disability Benefits - All Occupations:

Any active employee who becomes totally and permanently disabled from any cause excepting intentional self-inflicted injury shall receive a monthly income equal to 50% of his regular monthly salary at the time of disability, or the retirement income accrued at time of disability, if greater. If the income earned by the disabled employee in any calendar year, when added to the disability income received by the disabled employee from his retirement system, exceeds the annual salary payable in that calendar year to an employee with the same job classification and number of years of service as the disabled employee has at the date of disability, then the disability income otherwise payable in the following calendar year shall be reduced by the amount of any such excess.

Death Benefits - All Occupations:

If any active employee dies from any cause, a monthly income equal to 50% of his salary at the time of death, or his accrued retirement income if greater, shall be paid to his widow as long as she is alive and does not remarry, and if the wodow be deceased, to the children of the deceased employee as long as they live and have not attained age 18 except that, if one or more of the surviving children be physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled.

Funding

Five separate retirement accounts should be set up, one for each retirement system. Contributions to each account should be expressed as a percentage of salary. The total contribution to each account should be such as to pay the normal cost of the system each year and amortize the unfunded liability over a reasonable period.

In regard to the policemen and firemen, the variation in the current funding level between the various cities and municipalities should be amortized over a specified period, such as twenty years. Cities whose past contributions have been above average should receive a credit, and cities whose past contributions have been below average should receive a charge.

We recommend that employees under all five systems contribute 7% of salary while an active member of the retirement system and accruing retirement benefits.

Administration - All Occupations

All administration of this retirement system shall be handled by the Public Employees Retirement Division of the Department of Administration. The administration shall include the maintenance of necessary records, and the receipt and disbursement of all funds. Also, the Public Employees Retirement System shall be responsible for securing a biennial actuarial valuation of the system.

All funds received by the Public Employees Retirement Division shall be transferred as directed by the state board of investment.

The Board of Trustees shall establish policies and make decisions within the guidelines defined in the law on all non-administrative matters.

VALUATION

AND

RECOMMENDATIONS ON CONSOLIDATION

THE RETIREMENT SYSTEMS

FOR

PUBLIC EMPLOYEES IN THE HAZARDOUS OCCUPATIONS

OF

FIRE PROTECTION AND LAW ENFORCEMENT

November 15, 1974

HENDRICKSON, BIRD & McKOSKEY, INC.
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SECTION I

INTRODUCTION

As a result of the 1973 Interim Study by the Joint Committee on State Administration, Senate Bill No. 493 was passed to provide for a study of the retirement systems of public employees in the hazardous occupations of fire protection and enforcement. The study encompassed the following retirement systems:

a) Municipal Police Officers' Retirement System established under Section 11-1823, R.C.M. 1947.

b) Firemen's Relief Association Disability and Pension System established under Section 11-1910, R.C.M. 1947.

c) Game Wardens' Retirement System established under Section 68-1403, R.C.M. 1947.

d) Highway Patrolmen's Retirement System established under Section 31-202, R.C.M. 1947.

e) Sheriffs' Retirement System established under Section 68-2601, R.C.M. 1947.

This report is the second of two reports presenting the results of the study. The first report covered the analysis of the major provisions of the existing retirement systems and the recommendations as to their consolidation. This report covers supplementary recommendations on the consolidated systems, a summary of all recommendations on the consolidated system, a comparison of the projected costs on the existing systems and the consolidated system, and the actuarial valuation of existing systems.

SECTION II

SUPPLEMENTARY RECOMMENDATIONS ON CONSOLIDATED SYSTEMS

Escalator Clause: Several of the systems currently have retirement allowances tied to Consumer Price Index changes or salary scale changes. These provisions are, of course, designed to protect retirement incomes from loss of purchasing power through inflation.

Escalator provisions which provide for the automatic increase in benefits whenever some index moves up can be costly. We evaluated the cost involved in tying retirement income under the consolidated system to the Consumers Price Index, subject to a maximum increase of 3% per year. As shown in Section IV, the regular annual contribution required to fund this benefit would be approximately 7% of salary.

The escalator provision in the firemen's current system is the only one providing for automatic increases. Basically, the provision states that the retirement income shall never fall below 50% of the city's starting pay for a fireman. The annual contribution required to fund this benefit is 1% of salary.

While the provision currently utilized by the firemen is far less expensive and does provide a basic floor on the purchasing power of the pension, it does have disadvantages. The retiree does not have any concrete idea of when the provision will begin to take effect for him, thus making his financial planning somewhat uncertain. Also, if the time comes when large numbers of retirees' incomes are dependent on the starting salary scale, decisions made regarding increases in salary for active firemen would have to take into account the increase in pension fund liabilities which would result.

A provision that ties the pension to the Consumers Price Index, as is utilized in Social Security, clearly provides the greatest protection against loss of purchasing power through inflation. However, we feel the costs to provide such a benefit are prohibitive. A provision which establishes a floor under the pension is a suitable alternative and is affordable. However, adjustment of the floor periodically should be on a discretionary basis. Also, the floor should cover existing as well as future retirees.

We recommend a minimum income level of $300 be established. This minimum should be reviewed every other year when the actuarial valuation is done to determine if an adjustment is warranted and if the cost can be supported.

Existing Retirees: Inflation has substantially eroded the buying power of pensions granted ten and twenty years ago. Pension amounts adequate in the 1940's and 1950's have, in many cases, become completely inadequate today. Inasmuch as these retirees are generally not covered by Social Security this situation can create severe hardships. The overall cost to establish a floor of $300 per month is not that substantial relative to the aggregate cost of the system, yet the financial relief is very substantial to those individuals personally involved.

It is our recommendation that the minimum payment for existing pensioners be established at $300 per month. This minimum income level should be reviewed periodically to determine whether it is still adequate and, if not, an appropriate adjustment made.

Mandatory Retirement Age: The mandatory retirement age under current legislation is as shown below.

Existing Retirement System	Mandatory Retirement Age
Firemen	None
Policemen	65
Highway Patrolmen	60
Sheriffs	65*
Game Wardens	60

*Except elected Sheriffs and appointed Under-Sheriffs.

As noted previously, we recommend a mandatory retirement age of 65 for all five occupations.

Burial Fund: We recommend a cash benefit at death of $1000 be provided to cover burial expenses.

State Tax On Benefits: State taxes, if any, levied on benefits paid under the consolidated system should be applied uniformly to all five occupations.

Extension of Benefits to First Day of Employment: Under current legislation, the newly hired fireman must go through a six month probationary period before he comes under the death and disability coverage provided by the pension plan. A crippling injury at this time would be disastrous to the young fireman. As this is the time during which relatively dangerous training exercises are undertaken by the inexperienced recruit, we feel this is a gap in coverage which should be closed. The additional cost would be small.

We recommend all persons employed in any of the five occupations be covered from the first day of employment.

SECTION III

SUMMARY OF RECOMMENDATIONS ON CONSOLIDATED SYSTEMS

The pension, death and disability program recommended here is intended to apply only to employees hired on or after July 1, 1975. Persons covered under existing programs would be allowed the benefits as provided under their existing programs, or those provided under the new program, whichever is more beneficial to them in the particular circumstance. Such persons would, however, be required to make the same contribution as those covered under the new program. It is recommended that only one new piece of legislation be written to cover all five systems.

RETIREMENT SYSTEM FOR PUBLIC EMPLOYEES IN HAZARDOUS OCCUPATIONS

Eligibility:

All employees shall be covered from the date of employment.

Retirement Allowance:

Policemen and Firemen: 50% of final salary after 20 years of service, plus 1% for each year of service beyond 20, subject to a maximum of 60% of final salary. Minimum retirement age 50. Mandatory retirement age 65.

Highway Patrolmen, Sheriffs and Game Wardens: 50% of final salary after 25 years of service, plus 1% for each year of service beyond 25, subject to a maximum of 60% of final salary. Retirement allowed after 20 years of service with a proportionate reduction of benefits. Minimum retirement age 50. Mandatory retirement age 65.

Form of Retirement Allowance - All Occupations:

Income shall continue undiminished to the retiree as long as he shall live, and at his death continue to his widow as long as she shall live and does not re-marry and, if the spouse be deceased, to the children of the retiree as long as they live and have not attained age 18, except that, if one or more of the surviving children be physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled.

Vesting - All Occupations:

Complete Years Service At Termination	Percent of Benefits Accrued At Termination-Payable At Normal Retirement Age
9 or less	0%
10	25
11	30
12	35
13	40
14	45
15	50
16	60
17	70
18	80
19	90
20 or more	100%

Withdrawal - All Occupations:

In no event shall any member of this retirement system receive less in compensation from this system, either in regular monthly income payments or as a lump sum, than the total of all contributions he has personally made to this system, together with such reasonable interest return on such contributions each year as shall be determined by the Board of Trustees.

Disability Benefits - All Occupations:

Any active employee who becomes totally and permanently disabled from any cause, excepting intentional self-inflicted injury, shall receive a monthly income equal to 50% of his regular monthly salary at the time of disability, or the retirement income accrued at time of disability, if greater. If the income earned by the disabled employee in any calendar year, when added to the disability income received by the disabled employee from his retirement system, exceeds the annual salary payable in that calendar year to an employee with the same job classification and number of years of service as the disabled employee had at the date of disability, then the disability income otherwise payable in the following calendar year shall be reduced by the amount of any such excess. However, in no event shall such reduction exceed 75% of the disability income otherwise payable.

Death Benefits - All Occupations:

If any active employee dies from any cause, a monthly income equal to 50% of his salary at the time of death, or his accrued retirement income if greater, shall be paid to his widow as long as she is alive and does not re-marry, and if the widow be deceased, to the children of the deceased employee as long as they live and have not attained age 18 except that, if one or more of the surviving children be

physically or mentally disabled such that he cannot provide for his own welfare, the income shall continue undiminished to such children as long as they live and continue to be disabled. A lump sum payment of $1000 shall be paid at the death of any active, disabled or retired employee.

Funding

Five separate retirement accounts should be set up, one for each retirement system. Contributions to each account should be expressed as a percentage of salary. The total contribution to each account should be such as to pay the normal cost of the system each year and amortize the unfunded liability over a reasonable period.

In regard to the policemen and firemen, the variation in the current funding level between the various cities and municipalities should be amortized over a specified period, such as twenty years. Cities whose past contributions have been above average should receive a credit, and cities whose past contributions have been below average should receive a charge.

We recommend that employees under all five systems contribute 7% of salary while an active member of the retirement system and accruing retirement benefits.

Administration - All Occupations

All administration of this retirement system shall be handled by the Public Employees Retirement Division of the Department of Administration. The administration shall include the maintenance of necessary records and the receipt and disbursement of all funds. Also, the Public Employees Retirement System shall be responsible for securing a biennial actuarial valuation of the system.

All funds received by the Public Employees Retirement Division shall be transferred as directed by the State Board of Investment.

The Board of Trustees shall establish policies and make decisions within the guidelines defined in the law on all non-administrative matters.

AMENDMENT TO PENSION LEGISLATION COVERING EXISTING RETIREES

All Hazardous Occupations:

The minimum retirement income benefit payable to those employees retired as of July 1, 1975 shall be $300 per month. A lump sum payment of $1000 shall be paid at death after July 1, 1975.

Actuarial Soundness

Actuarial soundness of a retirement system may be defined as:

> If in determining the costs of the system, a recognized funding method is employed, if a specific contribution schedule is followed (so as to amortize the unfunded accrued liability over a limited period), and if the actuarial assumptions are tested regularly for appropriateness, with changes being made from time to time as experience warrants, the system may be referred to as actuarially sound.

Because of variations in the value of mills and the number contributed, no specific schedule has been followed by the cities in their contributions to the firemen and policemen systems. These variations have made it difficult to determine the actuarial soundness of these systems. We therefore recommend that all contributions required by the retirement laws be expressed as a percentage of salary.

If the percentages of salaries established by the actuarial valuations are contributed, then it will be possible to state the systems are actuarially sound.

We have recommended that all employees contribute 7% of salary. We have also recommended that the state contribute 10% of the salaries for firemen and policement. The schedule below illustrates the required contributions for the existing benefits. Increased benefits will require additional funding.

Contributor	Firemen	Policemen	Highway Patrolmen	Sheriffs	Game Wardens
Employee	7.00%	7.00%	7.00%	7.00%	7.00%
State	10.00	10.00	18.94	0	18.52
City	11.00*	11.00*	0	0	0
County	0	0	0	11.01	0
Total	28.00%	28.00%	25.94%	18.01%	25.52%

* Most cities will be required to make additional contributions as discussed in Section V.

COMPARISON OF COSTS
ON EXISTING RETIREMENT SYSTEMS
VERSUS
CONSOLIDATED SYSTEMS

An actuarial valuation has been performed to determine the costs of the various recommendations which have been made for the consolidation of the retirement systems. The cost of each of the recommendations for the five systems is illustrated on the following table.

Because of the large cost of changing the normal retirement form from a cash refund annuity to a full benefit to surviving spouse, we have also illustrated the cost of an alternative form, joint and two-thirds to surviving spouse. Under this form, the full benefit would be payable during the member's lifetime; upon his death, two-thirds of this benefit would be continued to his surviving spouse.

As we feel that an automatic escalator provision would be a beneficial feature of the consolidated system, we have examined the costs of one such provision. The assumed provision provides that the benefits would increase with the Consumer Price Index, subject to a maximum increase of 3% per year. In determining the cost, we assumed that the maximum increase would apply each year.

BENEFIT COSTS AS A PERCENTAGE OF SALARY

	Firemen	Policemen	Highway Patrol	Sheriff	Game Wardens
Full benefit to spouse	0%	0%	2.63%	2.03%	2.73%
$300 minimum	1.17	1.32	.81	0	.22
Off-duty death	.36	.40	.27	.26	.31
Off-duty disability	.44	.45	.27	.26	.36
$1000 burial fund	.07	.07	.08	.08	.08
Return of interest	.09	.10	.18	.26	.11
Probationary coverage	.04	0	0	0	0
Rate Increase	2.17%	2.34%	4.24%	2.89%	3.81%
Current rate	32.49	31.62	25.94	18.01	25.52
Total Rate	34.66%	33.96%	30.18%	20.90%	29.33%
2/3 benefit to spouse	0%	0%	1.05%	.81%	1.10%
Adjusted total rate	34.66%	33.96%	28.60%	19.68%	27.70%
Escalator Clause (maximum of 3% per year)	7.12%	7.68%	6.91%	5.48%	7.43%
Current salaries	$4,255,924	$4,118,463	$2,317,809	$2,833,874	$1,014,204
Average salaries	9,921	9,736	10,584	8,940	9,943
Active members	429	423	219	317	102
Inactive members	254	249	70	0	18

SECTION V

ALLOCATION OF EXCESS FROZEN LIABILITY

Under the consolidated system all cities will contribute the same percentage of salary for policemen and firemen. This is necessary because the liabilities and assets will be pooled for each occupation. In the past, however, the various cities have set their contribution levels separately. As a result the level of assets built up over the years relative to the liabilities varies from city to city.

To determine the amount of these variations, we assumed a base contribution rate of 28% of salary. Accordingly, we have reviewed the actuarial valuation of each city to determine where unfunded liabilities have been established requiring contributions in excess of 28% of salary. The amount of these excess unfunded liabilities, as well as the percentage of salary that would be required to amortize it over 40 years, is shown in the table below. Freezing these liabilities in this way and amortizing them over the next 40 years out of contributions from the respective cities is an equitable method of correcting for differences in funding levels in the past.

POLICEMEN

City	Excess Frozen Liability	Percent of Salary 40 Year Amortization
Anaconda	$307,268	8.42%
Baker	0	0
Billings	868,047	2.96
Bozeman	129,380	2.19
Butte	998,266	10.24
Columbia Falls	0	0
Cut Bank	0	0
Dillon	55,274	3.38
Glasgow	0	0
Glendive	0	0
Great Falls	352,396	1.84
Havre	169,270	4.50
Helena	599,451	10.04
Kalispell	117,611	2.36
Lewistown	0	0
Livingston	113,160	5.38
Miles City	213,371	6.70
Missoula	790,160	6.18
Red Lodge	64,002	9.17
Whitefish	0	0

INTRODUCTION

As authorized by the Legislative Council under Senate Bill no. 493, Actuarial valuations have been completed on the following retirement systems:

a) Municipal Police Officers Retirement Systems established under Section 11-1823, R.C.M. 1947.
b) Firemen's Relief Association Disability and Pension System established under Section 11-910, R.C.M. 1947.
c) Game Warden's Retirement System established under Section 68-1403, R.C.M. 1947.
d) Highway Patrolmen's Retirement System established under Section 31-202, R.C.M. 1947.
e) Sheriff's Retirement System established under Section 63-2601, R.C.M. 1947.

A separate valuation was prepared for each of the thirteen firemen's funds and the twenty municipal police officers' funds.

The purpose of the valuations was to determine the financial position of the systems, the normal costs, and the unfunded accrued liabilities based upon present and prospective assets and liabilities of the various systems for the fiscal year beginning July 1, 1974. The valuations were based on employee data and other records maintained by the systems as of June 30, 1974, and incorporates all amendments of the retirement laws effective July 1, 1974.

This report presents the results of the valuations.

ACTUARIAL CERTIFICATION

Based upon the assumptions stated herein and the data submitted by the various systems, the valuations have been performed in accordance with generally accepted actuarial principles and techniques.

Jerome J. McKoskey
Fellow of the
Society of Actuaries

Alton P. Hendrickson
Associate of the
Society of Actuaries

METHOD OF FUNDING

The method of funding employed is commonly referred to as the "entry-age normal cost method". This method establishes a normal cost for each member as well as an unfunded accrued liability. The normal cost is the level percentage of annual salary required to fund the benefits assuming this percentage had been contributed since the member's entry into the system and will continue throughout his active service lifetime.

The unfunded accrued liability represents the liability for accrued benefits which have not been previously funded. This liability can arise from four sources:

(1) If the member were employed prior to the establishment of the system, and thus did not contribute during the prior years.

(2) If the member received additional credit which was not funded or only partially funded, such as military service.

(3) If benefits were increased for which no funding had been previously made.

(4) If past contributions were inadequate to support the financial requirements of the system.

In order to maintain the systems on an actuarially sound basis, the rates of contribution should be such as to meet the normal costs in addition to making some progress towards the amortization of the unfunded accrued liabilities. In determining the normal costs and unfunded accrued liabilities, certain assumptions must be made as to the expected experience of the funds. The assumptions applicable to each of the systems are described on the following pages as well as the results of the valuations.

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates for active members are based upon the Male 1951 Group Annuity Mortality Table projected to the year 1971.

The mortality rates for annuitants are based upon the 1937 Standard Annuity Table with ages set back 5 years for females.

Age	Death per 1000,000 Active Members	Deaths per 100,000 Annuitants
25	62	
30	77	
35	107	
40	156	
45	278	
50	503	
55		1355
60		1975
65		2875
70		4176
75		6046
80		8716
85		12484

Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of firemen.

Age	Disabilities per 100,000 Active Members
25	90
30	90
35	90
40	202
45	428
50	765
55	1395

Withdrawal Rates

The withdrawal rates illustrated below reflect the small personnel turnover experienced by the firemen's retirement fund.

Age	Withdrawals per 100,000 Active Members
25	8250
30	4720
35	2410
40	550
45	300
50	0
55	0

Salary Scale

The salary increases are based on an analysis of the actual experience of the firemen's salary, with an inflationary adjustment of 3.8% representing the average increase in the Consumer Price Index in the preceding 10 years.

Age	Expected Salary at age 55 as a Multiple of Current Salary
25	4.40
30	3.35
35	2.53
40	1.93
45	1.51
50	1.20
55	1.00

Retirement Rates

The assumed retirement rates are based upon the ages of the active members after first meeting the service requirement of 20 years.

Age	Retirements per 100,000 Active Members
50	25,000
51	10,000
52	10,000
53	10,000
54	10,000
55	10,000
56	5,000
57	5,000
58	5,000
59	5,000
60	5,000

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.83%
	(b)	Death	1.22
	(c)	Disability	1.48
	(d)	Return of Contribution	.22
	(e)	Total Rate	18.75%
(2)	Present Value of Future Salaries of Present Members		$58,187,315
(3)	Present Value of Future Normal Costs for Present Members		$10,945,112

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$30,942,224
(2)	Present Value of Future Normal Costs (Schedule 1)	10,945,112
(3)	Trust Fund Assets	3,655,649
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$16,341,463

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$118,940,309
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	13.74%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.75
(8)	Recommended Contribution Rate	32.49%
(9)	Current Salaries	$4,255,924
(10)	Recommended Contribution [(8) x (9)]	$1,382,750
(11)	Actual 1973-74 Contribution	$1,062,742

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 3,655,649	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	16,341,463	
(3)	Present Value of Future Contributions for Normal Costs	10,945,112	
Total Assets			$30,942,224

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$3,824,191	
	(b)	Death	2,008,737	
	(c)	Disability	1,981,986	
				$ 7,814,914
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$19,770,669	
	(b)	Death	1,436,638	
	(c)	Disability	1,706,285	
	(d)	Return of Contributions	213,718	
Total Liabilities				$23,127,310
				$30,942,224

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.48%
	(b)	Death	1.51
	(c)	Disability	1.44
	(d)	Return of Contribution	.17
	(e)	Total Rate	17.60%
(2)	Present Value of Future Salaries of Present Members		$2,428,411
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 427,400

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,268,211
(2)	Present Value of Future Normal Costs (Schedule 1)	427,400
(3)	Trust Fund Assets	80,898
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 759,913

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$5,040,437
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	15.08%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.60
(8)	Recommended Contribution Rate	32.68%
(9)	Current Salaries	$180,357
(10)	Recommended Contribution [(8) x (9)]	$58,941
(11)	Actual 1973-74 Contribution	$53,080

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 80,898	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	759,913	
(3)	Present Value of Future Contributions for Normal Costs	427,400	
Total Assets			$1,268,211

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$159,793	
	(b)	Death	64,729	
	(c)	Disability	139,146	
				$ 363,668
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$751,585	
	(b)	Death	76,187	
	(c)	Disability	70,239	
	(d)	Return of Contributions	6,532	
Total Liabilities				$ 904,543
				$1,268,211

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.93%
	(b)	Death	1.24
	(c)	Disability	1.54
	(d)	Return of Contribution	.23
	(e)	Total Rate	18.94%
(2)	Present Value of Future Salaries of Present Members		$14,648,524
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 2,774,430

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$7,282,356
(2)	Present Value of Future Normal Costs (Schedule 1)	2,774,430
(3)	Trust Fund Assets	887,364
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$3,620,562

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$29,872,884
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	12.12%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.94
(8)	Recommended Contribution Rate	31.06%
(9)	Current Salaries	$1,068,912
(10)	Recommended Contribution [(8) x (9)]	$332,004
(11)	Actual 1973-74 Contribution	$184,347

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$ 887,364	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	3,620,562	
(3)	Present Value of Future Contributions for Normal Costs	2,774,430	
Total Assets			$7,282,356
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$ 889,103	
	(b) Death	264,440	
	(c) Disability	417,025	
			$1,570,568
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$4,866,746	
	(b) Death	357,984	
	(c) Disability	435,532	
	(d) Return of Contributions	51,526	
			$5,711,788
Total Liabilities			$7,282,356

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.73%
	(b)	Death	1.13
	(c)	Disability	1.62
	(d)	Return of Contribution	.28
	(e)	Total Rate	19.76%
(2)	Present Value of Future Salaries of Present Members		$3,014,250
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 595,616

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,389,429
(2)	Present Value of Future Normal Costs (Schedule 1)	595,616
(3)	Trust Fund Assets	220,606
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 573,207

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$5,865,181
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	9.77%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.76
(8)	Recommended Contribution Rate	29.53%
(9)	Current Salaries	$209,868
(10)	Recommended Contribution [(8) x (9)]	$61,974
(11)	Actual 1973-74 Contribution	$45,758

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$220,606	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	573,207	
(3)	Present Value of Future Contributions for Normal Costs	595,616	
Total Assets			$1,389,429

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 0	
	(b)	Death	22,518	
	(c)	Disability	231,146	
				$ 253,664
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$967,480	
	(b)	Death	65,000	
	(c)	Disability	90,600	
	(d)	Return of Contributions	12,685	
Total Liabilities				$1,135,765
				$1,389,429

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.20%
	(b)	Death	1.23
	(c)	Disability	1.09
	(d)	Return of Contribution	.11
	(e)	Total Rate	16.63%
(2)	Present Value of Future Salaries of Present Members		$5,013,777
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 833,791

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$3,548,099
(2)	Present Value of Future Normal Costs (Schedule 1)	833,791
(3)	Trust Fund Assets	291,684
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$2,422,624

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$13,250,399
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	18.28%
(7)	Normal Cost Contribution Rate (Schedule 1)	16.63
(8)	Recommended Contribution Rate	34.91%
(9)	Current Salaries	$474,126
(10)	Recommended Contribution [(8) x (9)]	$165,517
(11)	Actual 1973-74 Contribution	$155,817

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 291,684	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	2,422,624	
(3)	Present Value of Future Contributions for Normal Costs	833,791	
Total Assets			$3,548,099

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
(a)	Retirement	$ 258,814	
(b)	Death	248,077	
(c)	Disability	386,609	
			$ 893,500
(2)	Present Value of Benefits - Active Members		
(a)	Retirement	$2,329,183	
(b)	Death	172,534	
(c)	Disability	140,505	
(d)	Return of Contributions	12,377	
Total Liabilities			$2,654,599
			$3,548,099

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.65%
	(b)	Death	1.19
	(c)	Disability	1.40
	(d)	Return of Contribution	.06
	(e)	Total Rate	18.30%
(2)	Present Value of Future Salaries of Present Members		$1,265,301
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 231,550

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$617,744
(2)	Present Value of Future Normal Costs (Schedule 1)	231,550
(3)	Trust Fund Assets	2,550
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$383,644

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$2,604,437
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	14.73%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.30
(8)	Recommended Contribution Rate	33.03%
(9)	Current Salaries	$93,192
(10)	Recommended Contribution [(8) x (9)]	$30,781
(11)	Actual 1973-74 Contribution	$18,806

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 2,550	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	383,644	
(3)	Present Value of Future Contributions for Normal Costs	231,550	
Total Assets			$617,744

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$42,681	
	(b)	Death	53,409	
	(c)	Disability	0	
				$ 96,090
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$442,500	
	(b)	Death	34,565	
	(c)	Disability	41,506	
	(d)	Return of Contributions	3,083	
Total Liabilities				$521,654
				$617,744

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.47%
	(b)	Death	1.09
	(c)	Disability	1.50
	(d)	Return of Contribution	.28
	(e)	Total Rate	19.34%
(2)	Present Value of Future Salaries of Present Members		$12,565,220
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 2,430,114

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$6,852,710
(2)	Present Value of Future Normal Costs (Schedule 1)	2,430,114
(3)	Trust Fund Assets	805,072
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$3,617,524

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$24,914,555
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	14.52%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.34
(8)	Recommended Contribution Rate	33.86%
(9)	Current Salaries	$891,493
(10)	Recommended Contribution [(8) x (9)]	$301,860
(11)	Actual 1973-74 Contribution	$216,558

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 805,072	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	3,617,524	
(3)	Present Value of Future Contributions for Normal Costs	2,430,114	
Total Assets			$6,852,710

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$1,001,658	
	(b)	Death	756,315	
	(c)	Disability	128,301	
				$1,886,274
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$4,273,190	
	(b)	Death	269,611	
	(c)	Disability	366,261	
	(d)	Return of Contributions	57,374	
Total Liabilities				$4,966,436
				$6,852,710

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.13%
	(b)	Death	1.03
	(c)	Disability	1.44
	(d)	Return of Contribution	.25
	(e)	Total Rate	18.85%
(2)	Present Value of Future Salaries of Present Members		$1,736,572
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 327,344

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$956,686
(2)	Present Value of Future Normal Costs (Schedule 1)	327,344
(3)	Trust Fund Assets	103,739
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$525,603

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$3,841,371
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	13.68%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.85
(8)	Recommended Contribution Rate	32.53%
(9)	Current Salaries	$137,452
(10)	Recommended Contribution [(8) x (9)]	$44,713
(11)	Actual 1973-74 Contribution	$32,060

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$103,739	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	525,603	
(3)	Present Value of Future Contributions for Normal Costs	327,344	
Total Assets			$956,686
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$ 37,080	
	(b) Death	109,829	
	(c) Disability	19,106	
			$166,015
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$690,920	
	(b) Death	38,981	
	(c) Disability	53,117	
	(d) Return of Contributions	7,653	
Total Liabilities			$790,671
			$956,686

SCHEDULE 1

NORMAL COST ALLOCATION

(1)	Normal Cost Contribution		Rate
	(a)	Retirement	15.75%
	(b)	Death	1.43
	(c)	Disability	1.77
	(d)	Return of Contribution	.26
	(e)	Total Rate	19.21%
(2)	Present Value of Future Salaries of Present Members		$4,738,778
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 910,319

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$2,134,771
(2)	Present Value of Future Normal Costs (Schedule 1)	910,319
(3)	Trust Fund Assets	247,890
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 976,562

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$7,980,322
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	12.24%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.21
(8)	Recommended Contribution Rate	31.45%
(9)	Current Salaries	$285,552
(10)	Recommended Contribution [(8) x (9)]	$89,806
(11)	Actual 1973-74 Contribution	$91,014

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 247,890	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	976,562	
(3)	Present Value of Future Contributions for Normal Costs	910,319	
Total Assets			$2,134,771

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 271,228	
	(b)	Death	179,063	
	(c)	Disability	249,398	
				$ 699,689
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$1,181,247	
	(b)	Death	106,395	
	(c)	Disability	130,240	
	(d)	Return of Contributions	17,200	
Total Liabilities				$1,435,082
				$2,134,771

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.81%
	(b)	Death	1.46
	(c)	Disability	1.85
	(d)	Return of Contribution	.28
	(e)	Total Rate	19.40%
(2)	Present Value of Future Salaries of Present Members		$3,131,299
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 607,472

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,495,610
(2)	Present Value of Future Normal Costs (Schedule 1)	607,472
(3)	Trust Fund Assets	182,354
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 750,784

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$5,120,002
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	13.78%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.40
(8)	Recommended Contribution Rate	33.18%
(9)	Current Salaries	$183,204
(10)	Recommended Contribution [(8) x (9)]	$60,787
(11)	Actual 1973-74 Contribution	$70,326

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$182,354	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	705,784	
(3)	Present Value of Future Contributions for Normal Costs	607,472	
Total Assets			$1,495,610

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$224,174	
	(b)	Death	55,178	
	(c)	Disability	308,839	
				$ 588,191
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$742,869	
	(b)	Death	67,671	
	(c)	Disability	85,214	
	(d)	Return of Contributions	11,665	
Total Liabilities				$ 907,419
				$1,495,610

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.44%
	(b)	Death	1.48
	(c)	Disability	1.44
	(d)	Return of Contribution	.10
	(e)	Total Rate	17.46%
(2)	Present Value of Future Salaries of Present Members		$829,048
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$144,752

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$510,930
(2)	Present Value of Future Normal Costs (Schedule 1)	144,752
(3)	Trust Fund Assets	107,477
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$258,701

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$1,742,216
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	14.85%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.46
(8)	Recommended Contribution Rate	32.31%
(9)	Current Salaries	$62,340
(10)	Recommended Contribution [(8) x (9)]	$20,142
(11)	Actual 1973-74 Contribution	$24,655

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$107,477	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	258,701	
(3)	Present Value of Future Contributions for Normal Costs	144,752	
Total Assets			$510,930
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$123,994	
	(b) Death	57,772	
	(c) Disability	0	
			$181,766
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$277,522	
	(b) Death	25,604	
	(c) Disability	24,610	
	(d) Return of Contributions	1,428	
Total Liabilities			$329,164
			$510,930

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.25%
	(b)	Death	1.42
	(c)	Disability	1.56
	(d)	Return of Contribution	.25
	(e)	Total Rate	18.48%
(2)	Present Value of Future Salaries of Present Members		$1,205,942
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 222,858

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$571,624
(2)	Present Value of Future Normal Costs (Schedule 1)	222,858
(3)	Trust Fund Assets	137,088
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$211,678

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$2,285,506
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	9.26%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.48
(8)	Recommended Contribution Rate	27.74%
(9)	Current Salaries	$81,780
(10)	Recommended Contribution [(8) x (9)]	$22,686
(11)	Actual 1973-74 Contribution	$27,716

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$137,088	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	211,678	
(3)	Present Value of Future Contributions for Normal Costs	222,858	
Total Assets			$571,624

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$ 15,869	
	(b) Death	97,489	
	(c) Disability	56,748	
			$170,106
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$332,449	
	(b) Death	31,129	
	(c) Disability	33,047	
	(d) Return of Contributions	4,893	
Total Liabilities			$401,518
			$571,624

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.20%
	(b)	Death	1.20
	(c)	Disability	1.52
	(d)	Return of Contribution	.22
	(e)	Total Rate	19.14%
(2)	Present Value of Future Salaries of Present Members		$1,704,977
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 326,333

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,010,204
(2)	Present Value of Future Normal Costs (Schedule 1)	326,333
(3)	Trust Fund Assets	128,247
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 555,624

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$3,503,101
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	15.86%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.14
(8)	Recommended Contribution Rate	35.00%
(9)	Current Salaries	$125,348
(10)	Recommended Contribution [(8) x (9)]	$43,872
(11)	Actual 1973-74 Contribution	$37,074

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$128,247	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	555,624	
(3)	Present Value of Future Contributions for Normal Costs	326,333	
Total Assets			$1,010,204

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$238,643	
	(b)	Death	34,744	
	(c)	Disability	45,668	
				$ 319,055
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$588,447	
	(b)	Death	42,837	
	(c)	Disability	53,475	
	(d)	Return of Contributions	6,390	
Total Liabilities				$ 691,149
				$1,010,204

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	16.20%
	(b) Death	1.09
	(c) Disability	1.37
	(d) Return of Contribution	.19
	(e) Total Rate	18.85%
(2)	Present Value of Future Salaries of Present Members	$5,905,216
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$1,113,133

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$3,303,850
(2)	Present Value of Future Normal Costs (Schedule 1)	1,113,133
(3)	Trust Fund Assets	460,680
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$1,730,037

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$12,919,898
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	13.39%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.85
(8)	Recommended Contribution Rate	32.24%
(9)	Current Salaries	$462,300
(10)	Recommended Contribution [(8) x (9)]	$149,046
(11)	Actual 1973-74 Contribution	$105,531

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$ 460,680	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	1,730,037	
(3)	Present Value of Future Contributions for Normal Costs	1,113,133	
Total Assets			$3,303,850
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$ 561,154	
	(b) Death	65,174	
	(c) Disability	0	
			$ 626,328
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$2,326,531	
	(b) Death	148,140	
	(c) Disability	181,939	
	(d) Return of Contributions	20,912	
Total Liabilities			$2,677,522
			$3,303,850

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates for active members are based upon the Male 1951 Group Annuity Mortality Table projected to the year 1971.

The mortality rates for annuitants are based upon the 1937 Standard Annuity Table with ages set back 5 years for females.

Age	Death per 1000,000 Active Members	Deaths per 100,000 Annuitants
25	62	
30	77	
35	107	
40	156	
45	278	
50	503	
55		1355
60		1975
65		2875
70		4176
75		6046
80		8716
85		12484

Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of policemen.

Age	Disabilities per 100,000 Active Members
25	90
30	90
35	90
40	202
45	428
50	765
55	1395

Withdrawal Rates

The withdrawal rates illustrated below reflect the small personnel turnover experienced by the policemen's retirement fund.

Age	Withdrawals per 100,000 Active Members
25	9250
30	5520
35	2410
40	550
45	300
50	0
55	0

Salary Scale

The salary increases are based on an analysis of the actual experience of the policemen's salary, with an inflationary adjustment of 3.8% representing the average increase in the Consumer Price Index in the preceding 10 years.

Age	Expected Salary at age 55 as a Multiple of Current Salary
25	4.46
30	3.38
35	2.53
40	1.92
45	1.50
50	1.20
55	1.00

Retirement Rates

The assumed retirement rates are based upon the ages of the active members after first meeting the service requirement of 20 years.

Age	Retirements per 100,000 Active Members
50	25,000
51	10,000
52	10,000
53	10,000
54	10,000
55	10,000
56	5,000
57	5,000
58	5,000
59	5,000
60	5,000

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	15.59%
	(b) Death	1.43
	(c) Disability	1.64
	(d) Return of Contribution	.28
	(e) Total Rate	18.94%
(2)	Present Value of Future Salaries of Present Members	$61,548,242
(3)	Present Value of Future Normal Costs for Present Members	$11,671,551

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$29,847,017
(2)	Present Value of Future Normal Costs (Schedule 1)	11,671,551
(3)	Trust Fund Assets	3,584,525
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$14,590,941

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$115,098,684
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	12.68%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.94
(8)	Recommended Contribution Rate	31.62%
(9)	Current Salaries	$4,118,463
(10)	Recommended Contribution [(8) x (9)]	$1,302,218
(11)	Actual 1973-74 Contribution	$948,812

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 3,584,525	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	14,590,941	
(3)	Present Value of Future Contributions for Normal Costs	11,671,551	
Total Assets			$29,847,017

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$5,902,445	
	(b) Death	1,943,877	
	(c) Disability	1,679,520	
			$ 9,525,842
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$16,871,665	
	(b) Death	1,512,792	
	(c) Disability	1,694,077	
	(d) Return of Contributions	242,641	
Total Liabilities			$20,321,175
			$29,847,017

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	14.58%
	(b) Death	1.60
	(c) Disability	1.66
	(d) Return of Contribution	.09
	(e) Total Rate	17.93%
(2)	Present Value of Future Salaries of Present Members	$1,841,682
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$ 330,214

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,029,204
(2)	Present Value of Future Normal Costs (Schedule 1)	330,214
(3)	Trust Fund Assets	24,201
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 674,789

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$3,649,263
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	18.49%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.93
(8)	Recommended Contribution Rate	36.42%
(9)	Current Salaries	$130,578
(10)	Recommended Contribution [(8) x (9)]	$47,557
(11)	Actual 1973-74 Contribution	$35,645

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 24,201	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	674,789	
(3)	Present Value of Future Contributions for Normal Costs	330,214	
Total Assets			$1,029,204

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$233,997	
	(b) Death	97,315	
	(c) Disability	0	
			$331,312
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$576,481	
	(b) Death	57,172	
	(c) Disability	61,068	
	(d) Return of Contributions	3,171	
Total Liabilities			$697,892
			$1,029,204

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.34%
	(b)	Death	1.64
	(c)	Disability	1.90
	(d)	Return of Contribution	.45
	(e)	Total Rate	19.33%
(2)	Present Value of Future Salaries of Present Members		$594,137
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$114,847

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$140,057
(2)	Present Value of Future Normal Costs (Schedule 1)	114,847
(3)	Trust Fund Assets	5,000
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 20,210

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$953,775
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	2.12%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.33
(8)	Recommended Contribution Rate	21.45%
(9)	Current Salaries	$34,128
(10)	Recommended Contribution [(8) x (9)]	$7,320
(11)	Actual 1973-74 Contribution	$4,437

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 5,000	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	20,210	
(3)	Present Value of Future Contributions for Normal Costs	114,847	
Total Assets			$140,057

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 0	
	(b)	Death	0	
	(c)	Disability	0	
				$ 0
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$110,271	
	(b)	Death	12,627	
	(c)	Disability	14,174	
	(d)	Return of Contributions	2,985	
Total Liabilities				$140,057
				$140,057

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.01%
	(b)	Death	1.31
	(c)	Disability	1.61
	(d)	Return of Contribution	.30
	(e)	Total Rate	19.23%
(2)	Present Value of Future Salaries of Present Members		$15,236,135
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$2,929,909

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$7,095,879
(2)	Present Value of Future Normal Costs (Schedule 1)	2,929,909
(3)	Trust Fund Assets	726,722
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$3,439,248

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$29,325,905
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	11.73%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.23
(8)	Recommended Contribution Rate	30,96%
(9)	Current Salaries	$1,049,340
(10)	Recommended Contribution [(8) x (9)]	$324,876
(11)	Actual 1973-74 Contribution	$199,566

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 726,722	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	3,439,248	
(3)	Present Value of Future Contributions for Normal Costs	2,929,909	
Total Assets			$7,095,879

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$1,198,141	
	(b)	Death	459,981	
	(c)	Disability	170,749	
				$1,828,871
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$4,418,955	
	(b)	Death	356,623	
	(c)	Disability	428,332	
	(d)	Return of Contributions	63,098	
Total Liabilities				$5,267,008
				$7,095,879

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.32%
	(b)	Death	1.59
	(c)	Disability	1.83
	(d)	Return of Contribution	.35
	(e)	Total Rate	19.09%
(2)	Present Value of Future Salaries of Present Members		$3,513,150
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 670,660

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,495,138
(2)	Present Value of Future Normal Costs (Schedule 1)	670,660
(3)	Trust Fund Assets	168,437
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 656,041

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$5,907,772
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	11.10%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.09
(8)	Recommended Contribution Rate	30.19%
(9)	Current Salaries	$211,392
(10)	Recommended Contribution [(8) x (9)]	$63,819
(11)	Actual 1973-74 Contribution	$42,470

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$168,437	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	656,041	
(3)	Present Value of Future Contributions for Normal Costs	670,660	
Total Assets			$1,495,138

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$370,710	
	(b)	Death	33,378	
	(c)	Disability	151,665	
				$ 555,753
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$752,751	
	(b)	Death	81,156	
	(c)	Disability	91,042	
	(d)	Return of Contributions	14,436	
Total Liabilities				$ 939,385
				$1,495,138

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	14.26%
	(b) Death	1.85
	(c) Disability	1.63
	(d) Return of Contribution	.18
	(e) Total Rate	17.92%
(2)	Present Value of Future Salaries of Present Members	$5,103,866
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$ 914,613

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$2,968,971
(2)	Present Value of Future Normal Costs (Schedule 1)	914,613
(3)	Trust Fund Assets	73,433
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$1,980,925

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$9,748,696
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	20.32%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.92
(8)	Recommended Contribution Rate	38.24%
(9)	Current Salaries	$348,828
(10)	Recommended Contribution [(8) x (9)]	$133,392
(11)	Actual 1973-74 Contribution	$111,375

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 73,433	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	1,980,925	
(3)	Present Value of Future Contributions for Normal Costs	914,613	
Total Assets			$2,968,971

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$756,694	
	(b)	Death	411,602	
	(c)	Disability	205,870	
				$1,374,166
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$1,283,587	
	(b)	Death	160,745	
	(c)	Disability	136,505	
	(d)	Return of Contributions	13,968	
Total Liabilities				$1,594,805
				$2,968,971

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.11%
	(b)	Death	1.23
	(c)	Disability	1.55
	(d)	Return of Contribution	.35
	(e)	Total Rate	19.24%
(2)	Present Value of Future Salaries of Present Members		$814,714
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$156,751

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$270,102
(2)	Present Value of Future Normal Costs (Schedule 1)	156,751
(3)	Trust Fund Assets	71,408
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 41,943

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$1,509,809
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	2.78%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.24
(8)	Recommended Contribution Rate	22.02%
(9)	Current Salaries	$54,024
(10)	Recommended Contribution [(8) x (9)]	$11,896
(11)	Actual 1973-74 Contribution	$29,187

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 71,408	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	41,943	
(3)	Present Value of Future Contributions for Normal Costs	156,751	
Total Assets			$270,102

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 0	
	(b)	Death	0	
	(c)	Disability	0	
				$ 0
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$226,837	
	(b)	Death	17,787	
	(c)	Disability	21,477	
	(d)	Return of Contributions	4,001	
Total Liabilities				$270,102
				$270,102

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.17%
	(b)	Death	1.99
	(c)	Disability	1.88
	(d)	Return of Contribution	.30
	(e)	Total Rate	19.34%
(2)	Present Value of Future Salaries of Present Members		$516,052
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 99,804

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$142,330
(2)	Present Value of Future Normal Costs (Schedule 1)	99,804
(3)	Trust Fund Assets	42,499
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 27

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$884,131
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	0%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.34
(8)	Recommended Contribution Rate	19.34%
(9)	Current Salaries	$31,636
(10)	Recommended Contribution [(8) x (9)]	$6,118
(11)	Actual 1973-74 Contribution	$6,990

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$42,499	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	27	
(3)	Present Value of Future Contributions for Normal Costs	99,804	
Total Assets			$142,330

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$14,124	
	(b)	Death	0	
	(c)	Disability	0	
				$ 14,124
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$100,393	
	(b)	Death	13,397	
	(c)	Disability	12,541	
	(d)	Return of Contributions	1,875	
Total Liabilities				$128,206
				$142,330

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
(a)	Retirement	15.37
(b)	Death	1.40
(c)	Disability	1.46
(d)	Return of Contribution	.25
(e)	Total Rate	18.48
(2)	Present Value of Future Salaries of Present Members	$[illegible]10.74
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$150.19

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$108,354	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	210,932	
(3)	Present Value of Future Contributions for Normal Costs	150,194	
Total Assets			$469,480

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 0	
	(b)	Death	89,087	
	(c)	Disability	90,745	
				$179,832
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$243,686	
	(b)	Death	21,716	
	(c)	Disability	21,141	
	(d)	Return of Contributions	3,105	
Total Liabilities				$289,648
				$469,480

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.98%
	(b)	Death	1.63
	(c)	Disability	1.79
	(d)	Return of Contribution	.44
	(e)	Total Rate	18.84%
(2)	Present Value of Future Salaries of Present Members		$1,061,346
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 199,958

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$322,016
(2)	Present Value of Future Normal Costs (Schedule 1)	199,958
(3)	Trust Fund Assets	122,044
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 14

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$1,828,936
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	0%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.84
(8)	Recommended Contribution Rate	18.84%
(9)	Current Salaries	$65,443
(10)	Recommended Contribution [(8) x (9)]	$12,329
(11)	Actual 1973-74 Contribution	$18,426

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$122,044	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	14	
(3)	Present Value of Future Contributions for Normal Costs	199,958	
Total Assets			$322,016

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$71,872	
	(b)	Death	0	
	(c)	Disability	0	
				$ 71,872
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$198,422	
	(b)	Death	23,269	
	(c)	Disability	23,550	
	(d)	Return of Contributions	4,903	
Total Liabilities				$250,144
				$322,016

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	16.71%
	(b) Death	1.26
	(c) Disability	1.76
	(d) Return of Contribution	.46
	(e) Total Rate	20.19%
(2)	Present Value of Future Salaries of Present Members	$1,622,819
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$ 327,647

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$579,888
(2)	Present Value of Future Normal Costs (Schedule 1)	327,647
(3)	Trust Fund Assets	119,858
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$132,383

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$2,634,620
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	5.02%
(7)	Normal Cost Contribution Rate (Schedule 1)	20.19
(8)	Recommended Contribution Rate	25.21%
(9)	Current Salaries	$94,272
(10)	Recommended Contribution [(8) x (9)]	$23,766
(11)	Actual 1973-74 Contribution	$17,357

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$119,858	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	132,383	
(3)	Present Value of Future Contributions for Normal Costs	327,647	
Total Assets			$579,888

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$108,712	
	(b)	Death	23,771	
	(c)	Disability	0	
				$132,483
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$370,670	
	(b)	Death	28,352	
	(c)	Disability	39,151	
	(d)	Return of Contributions	9,232	
Total Liabilities				$447,405
				$579,888

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	15.40%
	(b) Death	1.38
	(c) Disability	1.52
	(d) Return of Contribution	.21
	(e) Total Rate	18.51%
(2)	Present Value of Future Salaries of Present Members	$9,733,415
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$1,801,655

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$5,213,874
(2)	Present Value of Future Normal Costs (Schedule 1)	1,801,655
(3)	Trust Fund Assets	1,243,172
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$2,169,047

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$19,151,967
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	11.33%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.51
(8)	Recommended Contribution Rate	29.84%
(9)	Current Salaries	$685,296
(10)	Recommended Contribution [(8) x (9)]	$204,492
(11)	Actual 1973-74 Contribution	$171,424

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$1,243,172	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	2,169,047	
(3)	Present Value of Future Contributions for Normal Costs	1,801,655	
Total Assets			$5,213,874
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$1,172,871	
	(b) Death	213,744	
	(c) Disability	209,451	
			$1,596,066
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$3,038,510	
	(b) Death	260,833	
	(c) Disability	283,254	
	(d) Return of Contributions	35,211	
Total Liabilities			$3,617,808
			$5,213,874

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.76%
	(b)	Death	1.46
	(c)	Disability	1.70
	(d)	Return of Contribution	.35
	(e)	Total Rate	19.27%
(2)	Present Value of Future Salaries of Present Members		$2,149,335
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 414,177

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,016,142
(2)	Present Value of Future Normal Costs (Schedule 1)	414,177
(3)	Trust Fund Assets	104,163
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 497,802

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$3,761,554
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	13.23%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.27
(8)	Recommended Contribution Rate	32.50%
(9)	Current Salaries	$134,596
(10)	Recommended Contribution [(8) x (9)]	$43,744
(11)	Actual 1973-74 Contribution	$37,954

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$104,163	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	497,802	
(3)	Present Value of Future Contributions for Normal Costs	414,177	
Total Assets			$1,016,142
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$295,672	
	(b) Death	18,630	
	(c) Disability	68,718	
			$ 383,020
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$519,340	
	(b) Death	48,287	
	(c) Disability	55,450	
	(d) Return of Contributions	10,045	
Total Liabilities			$ 633,122
			$1,016,142

SCHEDULE 1

NORMAL COST ALLOCATION

(1)	Normal Cost Contribution	Rate
	(a) Retirement	16.32%
	(b) Death	1.21
	(c) Disability	1.59
	(d) Return of Contribution	.27
	(e) Total Rate	19.39%
(2)	Present Value of Future Salaries of Present Members	$3,111,596
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$ 603,338

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,766,887
(2)	Present Value of Future Normal Costs (Schedule 1)	603,338
(3)	Trust Fund Assets	50,257
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$1,113,292

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$5,970,625
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	18.65%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.39
(8)	Recommended Contribution Rate	38.04%
(9)	Current Salaries	$213,641
(10)	Recommended Contribution [(8) x (9)]	$81,269
(11)	Actual 1973-74 Contribution	$58,144

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 50,257	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	1,113,292	
(3)	Present Value of Future Contributions for Normal Costs	603,338	
Total Assets			$1,766,887

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$179,874	
	(b)	Death	163,325	
	(c)	Disability	264,093	
				$ 607,292
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$986,249	
	(b)	Death	69,231	
	(c)	Disability	91,349	
	(d)	Return of Contributions	12,766	
Total Liabilities				$1,159,595
				$1,766,887

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.66%
	(b)	Death	1.51
	(c)	Disability	1.86
	(d)	Return of Contribution	.27
	(e)	Total Rate	19.30%
(2)	Present Value of Future Salaries of Present Members		$2,973,927
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 573,968

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$1,288,680
(2)	Present Value of Future Normal Costs (Schedule 1)	573,968
(3)	Trust Fund Assets	163,376
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 551,336

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$4,983,509
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	11.06%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.30
(8)	Recommended Contribution Rate	30.36%
(9)	Current Salaries	$178,320
(10)	Recommended Contribution [(8) x (9)]	$54,138
(11)	Actual 1973-74 Contribution	$32,196

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$163,376	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	551,336	
(3)	Present Value of Future Contributions for Normal Costs	573,968	
Total Assets			$1,288,680

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$230,567	
	(b) Death	100,093	
	(c) Disability	87,345	
			$ 418,005
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$709,551	
	(b) Death	67,364	
	(c) Disability	82,926	
	(d) Return of Contributions	10,834	
Total Liabilities			$ 870,675
			$1,288,680

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	13.98%
	(b) Death	1.68
	(c) Disability	1.52
	(d) Return of Contribution	.25
	(e) Total Rate	17.43%
(2)	Present Value of Future Salaries of Present Members	$1,437,859
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$ 250,619

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$611,584
(2)	Present Value of Future Normal Costs (Schedule 1)	250,619
(3)	Trust Fund Assets	118,337
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$242,628

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$2,788,216
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	8.70%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.43
(8)	Recommended Contribution Rate	26.13%
(9)	Current Salaries	$99,768
(10)	Recommended Contribution [(8) x (9)]	$26,069
(11)	Actual 1973-74 Contribution	$25,023

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$118,337	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	242,628	
(3)	Present Value of Future Contributions for Normal Costs	250,619	
Total Assets			$611,584

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$162,865	
	(b) Death	25,274	
	(c) Disability	0	
			$188,139
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$341,233	
	(b) Death	42,623	
	(c) Disability	34,733	
	(d) Return of Contributions	4,856	
Total Liabilities			$423,445
			$611,584

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.30%
	(b)	Death	1.66
	(c)	Disability	1.43
	(d)	Return of Contribution	.21
	(e)	Total Rate	17.60%
(2)	Present Value of Future Salaries of Present Members		$1,048,594
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 184,553

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$530,934
(2)	Present Value of Future Normal Costs (Schedule 1)	184,553
(3)	Trust Fund Assets	14,379
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$332,002

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$2,103,347
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	15.78%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.60
(8)	Recommended Contribution Rate	33.38%
(9)	Current Salaries	$75,262
(10)	Recommended Contribution [(8) x (9)]	$25,122
(11)	Actual 1973-74 Contribution	$29,939

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 14,379	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	332,002	
(3)	Present Value of Future Contributions for Normal Costs	184,553	
Total Assets			$530,934

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$146,280	
	(b)	Death	29,697	
	(c)	Disability	0	
				$175,977
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$293,083	
	(b)	Death	32,083	
	(c)	Disability	26,098	
	(d)	Return of Contributions	3,693	
Total Liabilities				$354,957
				$530,934

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	16.56%
	(b)	Death	1.12
	(c)	Disability	1.51
	(d)	Return of Contribution	.31
	(e)	Total Rate	19.50%
(2)	Present Value of Future Salaries of Present Members		$1,621,516
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 316,196

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$878,358
(2)	Present Value of Future Normal Costs (Schedule 1)	316,196
(3)	Trust Fund Assets	78,019
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$484,143

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$3,184,644
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	15.20%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.50
(8)	Recommended Contribution Rate	34.70%
(9)	Current Salaries	$113,953
(10)	Recommended Contribution [(8) x (9)]	$39,542
(11)	Actual 1973-74 Contribution	$32,617

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 78,019	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	484,143	
(3)	Present Value of Future Contributions for Normal Costs	316,196	
Total Assets			$878,358

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$261,076	
	(b)	Death	16,020	
	(c)	Disability	0	
				$277,096
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$512,812	
	(b)	Death	35,095	
	(c)	Disability	45,788	
	(d)	Return of Contributions	7,567	
Total Liabilities				$601,262
				$878,358

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	16.39%
	(b) Death	1.28
	(c) Disability	1.71
	(d) Return of Contribution	.36
	(e) Total Rate	19.74%
(2)	Present Value of Future Salaries of Present Members	$7,171,830
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$1,415,719

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$3,513,401
(2)	Present Value of Future Normal Costs (Schedule 1)	1,415,719
(3)	Trust Fund Assets	250,851
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$1,846,831

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$12,785,753
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	14.44%
(7)	Normal Cost Contribution Rate (Schedule 1)	19.74
(8)	Recommended Contribution Rate	34.18%
(9)	Current Salaries	$457,500
(10)	Recommended Contribution [(8) x (9)]	$156,374
(11)	Actual 1973-74 Contribution	$69,568

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$ 250,851	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	1,846,831	
(3)	Present Value of Future Contributions for Normal Costs	1,415,719	
Total Assets			$3,513,401
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$698,990	
	(b) Death	128,424	
	(c) Disability	430,884	
			$1,258,298
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$1,881,476	
	(b) Death	146,856	
	(c) Disability	192,281	
	(d) Return of Contributions	34,490	
Total Liabilities			$2,255,103
			$3,513,401

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	14.15%
	(b)	Death	2.46
	(c)	Disability	2.04
	(d)	Return of Contribution	.21
	(e)	Total Rate	18.86%
(2)	Present Value of Future Salaries of Present Members		$429,513
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 81,006

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$227,801
(2)	Present Value of Future Normal Costs (Schedule 1)	81,006
(3)	Trust Fund Assets	19,022
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$127,773

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$697,948
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	18.31%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.86
(8)	Recommended Contribution Rate	37.17%
(9)	Current Salaries	$24,974
(10)	Recommended Contribution [(8) x (9)]	$9,283
(11)	Actual 1973-74 Contribution	$7,854

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$ 19,022	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	127,773	
(3)	Present Value of Future Contributions for Normal Costs	81,006	
Total Assets			$227,801
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$ 0	
	(b) Death	133,536	
	(c) Disability	0	
			$133,536
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$70,622	
	(b) Death	12,276	
	(c) Disability	10,293	
	(d) Return of Contributions	1,074	
Total Liabilities			$ 94,265
			$227,801

SCHEDULE 1

NORMAL COST ALLOCATION

		Rate
(1)	Normal Cost Contribution	
	(a) Retirement	14.57%
	(b) Death	1.74
	(c) Disability	1.59
	(d) Return of Contribution	.10
	(e) Total Rate	18.00%
(2)	Present Value of Future Salaries of Present Members	$754,017
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]	$135,723

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$286,291
(2)	Present Value of Future Normal Costs (Schedule 1)	135,723
(3)	Trust Fund Assets	80,993
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 69,575

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$1,592,979
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	4.37%
(7)	Normal Cost Contribution Rate (Schedule 1)	18.00
(8)	Recommended Contribution Rate	22.37%
(9)	Current Salaries	$57,000
(10)	Recommended Contribution [(8) x (9)]	$12,751
(11)	Actual 1973-74 Contribution	$7,794

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$ 80,993	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	69,575	
(3)	Present Value of Future Contributions for Normal Costs	135,723	
Total Assets			$286,291

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a)	Retirement	$ 0	
	(b)	Death	0	
	(c)	Disability	0	
				$ 0
(2)	Present Value of Benefits - Active Members			
	(a)	Retirement	$236,736	
	(b)	Death	25,300	
	(c)	Disability	22,924	
	(d)	Return of Contributions	1,331	
Total Liabilities				$286,291
				$286,291

HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates for active members are based upon the Male 1951 Group Annuity Mortality Table projected to the year 1971.

The mortality rates for annuitants are based upon the 1937 Standard Annuity Table with ages set back 5 years for females.

Age	Death per 1000,000 Active Members	Deaths per 100,000 Annuitants
25	62	
30	77	
35	107	
40	156	
45	278	
50	503	
55		1355
60		1975
65		2875
70		4176
75		6046
80		8716
85		12484

Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of highway patrolmen.

Age	Disabilities per 100,000 Active Members
25	90
30	90
35	90
40	202
45	428
50	765
55	1395

Withdrawal Rates

The withdrawal rates illustrated below reflect the personnel turnover experienced by the highway patrolmen's retirement fund.

Age	Withdrawals per 100,000 Active Members
25	8450
30	4800
35	3020
40	2790
45	1490
50	0
55	0

Salary Scale

The salary increases are based on an analysis of the actual experience of the highway patrolmen's salary, with an inflationary adjustment of 3.8% representing the average increase in the Consumer Price Index in the preceding 10 years.

Age	Expected Salary at age 55 as a Multiple of Current Salary
25	4.35
30	3.54
35	2.83
40	2.22
45	1.71
50	1.31
55	1.00

Retirement Rates

The assumed retirement rates are based upon the ages of the active members after first meeting the service requirement of 20 years.

Age	Retirements per 100,000 Active Members
50	20,000
51	20,000
52	10,000
53	10,000
54	10,000
55	5,000
56	5,000
57	5,000
58	5,000
59	5,000
60	5,000

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	15.21%
	(b)	Death	1.04
	(c)	Disability	1.21
	(d)	Return of Contribution	.46
	(e)	Total Rate	17.92%
(2)	Present Value of Future Salaries of Present Members		$25,476,544
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 4,565,397

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$12,256,539
(2)	Present Value of Future Normal Costs (Schedule 1)	4,565,397
(3)	Trust Fund Assets	2,497,457
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$ 5,193,685

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$64,775,808
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	8.02%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.92
(8)	Recommended Contribution Rate	25.94%
(9)	Current Salaries	$2,317,809
(10)	Recommended Contribution [(8) x (9)]	$601,240
(11)	Actual 1973-74 Contribution	$280,313

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:			
(1)	Trust Fund	$2,497,457	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	5,193,685	
(3)	Present Value of Future Contributions for Normal Costs	4,565,397	
Total Assets			$12,256,539
Liabilities:			
(1)	Present Value of Benefits - Inactive Members		
	(a) Retirement	$1,981,523	
	(b) Death	118,499	
	(c) Disability	263,502	
			$ 2,363,524
(2)	Present Value of Benefits - Active Members		
	(a) Retirement	$8,770,602	
	(b) Death	468,335	
	(c) Disability	445,434	
	(d) Return of Contributions	208,644	
Total Liabilities			$ 9,893,015
			$12,256,539

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates for active members are based upon the Male 1951 Group Annuity Mortality Table projected to the year 1971.

The mortality rates for annuitants are based upon the 1937 Standard Annuity Table with ages set back 5 years for females.

Age	Death per 1000,000 Active Members	Deaths per 100,000 Annuitants
25	62	
30	77	
35	107	
40	156	
45	278	
50	503	
55		1355
60		1975
65		2875
70		4176
75		6046
80		8716
85		12484

Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of sheriffs.

Age	Disabilities per 100,000 Active Members
25	90
30	90
35	90
40	202
45	428
50	765
55	1395

Withdrawal Rates

The withdrawal rates illustrated below reflect the personnel turnover experienced by the sheriffs' retirement fund.

Age	Withdrawals per 100,000 Active Members
25	12500
30	8840
35	7990
40	6560
45	4200
50	2370
55	0

Salary Scale

The salary increases are based on an analysis of the actual experience of the sheriffs' salary, with an inflationary adjustment of 3.8% representing the average increase in the Consumer Price Index in the preceding 10 years.

Age	Expected Salary at age 55 as a Multiple of Current Salary
25	4.45
30	3.37
35	2.35
40	1.93
45	1.51
50	1.20
55	1.00

Retirement Rates

The assumed retirement rates are based upon the ages of the active members after first meeting the service requirement of 25 years.

Age	Retirements per 100,000 Active Members
55	25,000
56	10,000
57	10,000
58	10,000
59	10,000
60	10,000
61	5,000
62	5,000
63	5,000
64	5,000
65	5,000

SCHEDULE 1

NORMAL COST ALLOCATION

			Rate
(1)	Normal Cost Contribution		
	(a)	Retirement	11.22%
	(b)	Death	.98
	(c)	Disability	1.01
	(d)	Return of Contribution	.99
	(e)	Total Rate	14.20%
(2)	Present Value of Future Salaries of Present Members		$8,064,200
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$1,145,116

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$6,558,976
(2)	Present Value of Future Normal Costs (Schedule 1)	1,145,116
(3)	Trust Fund Assets	2,400,000*
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$3,013,860

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$79,198,268
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	3.81%
(7)	Normal Cost Contribution Rate (Schedule 1)	14.20
(8)	Recommended Contribution Rate	18.01%
(9)	Current Salaries	$2,833,874
(10)	Recommended Contribution [(8) x (9)]	$510,381

* Approximate - actual assets were unavailable at time of report.

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$2,400,000	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	3,013,860	
(3)	Present Value of Future Contributions for Normal Costs	1,145,116	
Total Assets			$6,558,976

Liabilities:

(1)	Present Value of Benefits - Inactive Members		
(a)	Retirement	$ 0	
(b)	Death	0	
(c)	Disability	0	
			$ 0
(2)	Present Value of Benefits - Active Members		
(a)	Retirement	$5,539,248	
(b)	Death	355,516	
(c)	Disability	328,710	
(d)	Return of Contributions	335,502	
			$6,558,976
Total Liabilities			$6,558,976

GAME WARDENS' RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

Mortality Rates

The mortality rates for active members are based upon the Male 1951 Group Annuity Mortality Table projected to the year 1971.

The mortality rates for annuitants are based upon the 1937 Standard Annuity Table with ages set back 5 years for females.

Age	Death per 1000,000 Active Members	Deaths per 100,000 Annuitants
25	62	
30	77	
35	107	
40	156	
45	278	
50	503	
55		1355
60		1975
65		2875
70		4176
75		6046
80		8716
85		12484

Disability Rates

The disability rates are based upon the male disability rates published by the Railroad Retirement Board in its seventh valuation, modified to reflect the higher disability risk of game wardens.

Age	Disabilities per 100,000 Active Members
25	90
30	90
35	90
40	202
45	428
50	765
55	1395

Withdrawal Rates

The withdrawal rates illustrated below reflect the personnel turnover experienced by the game wardens' retirement fund.

Age	Withdrawals per 100,000 Active Members
25	6330
30	4750
35	2530
40	1820
45	570
50	280
55	0

Salary Scale

The salary increases are based on an analysis of the actual experience of the game wardens' salary, with an inflationary adjustment of 3.8% representing the average increase in the Consumer Price Index in the preceding 10 years.

Age	Expected Salary at age 55 as a Multiple of Current Salary
25	4.70
30	3.87
35	3.15
40	2.40
45	1.79
50	1.34
55	1.00

Retirement Rates

The assumed retirement rates are based upon the ages of the active members after first meeting the service requirement of 25 years.

Age	Retirements per 100,000 Active Members
55	50,000
56	10,000
57	10,000
58	10,000
59	10,000
60	10,000

SCHEDULE 1

NORMAL COST ALLOCATION

(1)	Normal Cost Contribution		Rate
	(a)	Retirement	14.50%
	(b)	Death	1.08
	(c)	Disability	1.24
	(d)	Return of Contribution	.26
	(e)	Total Rate	17.08%
(2)	Present Value of Future Salaries of Present Members		$11,235,235
(3)	Present Value of Future Normal Costs for Present Members [(1e) x (2)]		$ 1,918,978

SCHEDULE 2

UNFUNDED ACCRUED LIABILITY ALLOCATION

(1)	Present Value of Benefits (Schedule 3)	$5,710,857
(2)	Present Value of Future Normal Costs (Schedule 1)	1,918,978
(3)	Trust Fund Assets	1,400,384
(4)	Unfunded Accrued Liability [(1)-(2)-(3)]	$2,391,495

Amortization Over 40-Year Period

(5)	Present Value of Salaries of Members During Next 40 Years	$28,343,959
(6)	Unfunded Accrued Liability Contribution Rate [(4) by (5)]	8.44%
(7)	Normal Cost Contribution Rate (Schedule 1)	17.08
(8)	Recommended Contribution Rate	25.52%
(9)	Current Salaries	$1,014,204
(10)	Recommended Contribution [(8) x (9)]	$258,825
(11)	Actual 1973-74 Contribution	$137,683

SCHEDULE 3

ACTUARIAL BALANCE SHEET

Assets:

(1)	Trust Fund	$1,400,384	
(2)	Present Value of Future Contributions for Unfunded Accrued Liability	2,391,495	
(3)	Present Value of Future Contributions for Normal Costs	1,918,978	
Total Assets			$5,710,857

Liabilities:

(1)	Present Value of Benefits - Inactive Members			
	(a) Retirement	$818,631		
	(b) Death	0		
	(c) Disability	116,776		
				$ 935,407
(2)	Present Value of Benefits - Active Members			
	(a) Retirement		$4,155,103	
	(b) Death		259,599	
	(c) Disability		300,248	
	(d) Return of Contributions		60,500	
Total Liabilities				$4,775,450
				$5,710,857

HENDRICKSON, BIRD & McKOSKEY, INC.

Actuaries • Pension Consultants

Jerome J. McKoskey,
Fellow of the Society of Actuaries
Philip A. Bird, Jr.,
Chartered Life Underwriter
Alton P. Hendrickson,
Associate of the Society of Actuaries

Edward V. Eve,
Pension Analyst

1212 Helena Avenue
Helena, Montana 59601
(406) 442-5141

January 6, 1975

Legislative Council
Capitol Building
Helena, Montana 59601

Dear Sirs:

Attached is our draft of an act to establish the RETIREMENT SYSTEM FOR PUBLIC EMPLOYEES IN THE HAZARDOUS OCCUPATIONS OF FIRE PROTECTION AND LAW ENFORCEMENT. This draft implements all of the recommendations contained in our report of November 15, 1974. The intent of this act is to consolidate the following retirement systems, as provided in Senate Bill No. 493:

1. Municipal Police Officers Retirement Systems.
2. Firemen's Relief Association Disability and Pension System.
3. Game Warden's Retirement System.
4. Highway Patrolmen's Retirement System.
5. Sheriff's Retirement System.

It has come to our attention that the game wardens are currently covered under Social Security and, further, that other members might elect to come under this coverage in the future. Accordingly, we recommend that all benefits payable under this act be offset by one-half of the amount of benefits which any member receives from Social Security as a result of his public employment. This recommendation is included in our draft of the act.

It was a pleasure working with the members of the Legislative Council. We gratefully acknowledge the cooperation and assistance provided by its staff.

Sincerely,

Alton P. Hendrickson

Alton P. Hendrickson, A.S.A.

Jerome J. McKoskey

Jerome J. McKoskey, F.S.A.

APH/mrc

__________ BILL NO. _____

INTRODUCED BY ____

A BILL FOR AN ACT ENTITLED: "AN ACT CREATING A RETIREMENT SYSTEM FOR PUBLIC EMPLOYEES IN THE HAZARDOUS OCCUPATIONS OF FIRE PROTECTION AND LAW ENFORCEMENT; AND REPEALING SECTIONS 11-1821, 11-1823 THROUGH 11-1830, 11-1838 THROUGH 11-1850, 31-201, 31-204 THROUGH 31-211, 31-213 THROUGH 31-230, 68-1401, 68-1402, 68-1405 THROUGH 68-1429, 68-2601 THROUGH 68-2629, AND 82A-210.1, R.C.M. 1947."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Short Title. This act may be cited as the "Retirement System for Public Employees in the Hazardous Occupations of Fire Protection and Law Enforcement Act".

Section 2. Definitions. As used in this act, unless the context clearly requires otherwise: (1) "Plan" means the retirement system for public employees in the hazardous occupations of fire protection and law enforcement, as set forth herein.

(2) "Prior plan" means, as to a member, either the firemen's relief association disability and pension system, the municipal police officers' retirement system, the highway patrolmen's retirement system, the sheriffs' retirement system, or the game wardens' retirement system.

(3) "Employer" means, as applicable, (a), (b), (c), or (d) below:

(a) the Montana department of justice, highway patrol bureau, as to a highway patrolman;

(b) the Montana department of fish and game, as to a game warden;

(c) the various counties of the state of Montana, as to a sheriff, under-sheriff, or deputy sheriff;

(d) the various cities within the state of Montana which have provided for police and/or fire protection, as to a police officer or fireman.

(4) "City" means an incorporated municipality of the first or second class and includes an incorporated or unincorporated municipality, other than a city of the first or second class, to which the provisions of this act are, or upon its election may become, applicable.

(5) "Administrator" means the public employees' retirement division of the department of administration.

(6) "Board" means the administrative retirement board established by this act.

(7) "Member" means, as to a person whose employment commences on or after the effective date of this act, (a), (b), (c), (d), or (e) below, as applicable:

(a) a highway patrolman, including the supervisor and

assistant supervisors;

(b) a game warden, including all warden supervisory personnel whose salary or compensation are paid out of the Montana fish and game moneys in the earmarked revenue fund;

(c) an elected or appointed county sheriff, undersheriff, or regularly appointed and acting deputy sheriff;

(d) a member of an organized fire department, whether paid or voluntary, and confirmed as such by the city or town council or commission;

(e) a duly appointed and approved police officer of a city.

However, a person who is a member of a prior plan on the day preceding the effective date of this act is a member hereunder.

(8) "Employer contributions" means the contributions of an employer and/or the state of Montana in support of the plan.

(9) "Member contributions" means the aggregate of the deductions from the compensation of a member, either during a period of active membership hereunder or as transferred from a prior plan, and standing to his credit, together with the interest thereon.

(10) "Monthly compensation" means, as to a member as of any specified date, the amount of his fixed monthly

remuneration from his employer, exclusive of overtime, sick pay, expense reimbursements, travel and maintenance allowances and other forms of indirect or irregular pay.

(11) "Final average compensation" means, as to a member as of any specified date, the monthly average of his total monthly compensations received for the three (3) consecutive years of his employment (or a shorter period of his employment, if less than three (3) years) which yields the highest average.

(12) "Prior service" means, as to a member, a period of employment for an employer for which credit was granted to or on behalf of such member under a prior plan and which credit has been transferred to this plan on or after the effective date of this act.

(13) "Membership service" means, as to a member, a period of employment for an employer commencing on or subsequent to the effective date of this act during which the required withholdings have been made from his monthly compensation and credited to his member contributions account. Pro rata credit shall be granted for employment on a part-time basis or for less than a complete fiscal year.

(14) "Credited service" means, as to a member on any specified date, the aggregate of his prior service, if any, and his membership service.

(15)"Retirement allowance" means, as to a member as of

any specified date, a monthly benefit, comprised of an employer annuity and a member annuity equal to the sum of (i) and (ii) below, as applicable:

(a) as to a police officer or fireman:

(i) two and one-half percent (2 1/2%) of his final average compensation, multiplied by the number of his years of credited service not in excess of twenty (20) years, plus

(ii) one percent (1%) of his final average compensation, multiplied by the number of his years of credited service in excess of twenty (20) years, not to exceed ten percent (10%);

(b) as to a highway patrolman, game warden, or sheriff:

(i) two percent (2%) of his final average compensation, multiplied by the number of his years of credited service not in excess of twenty-five (25) years, plus

(ii) one percent (1%) of his final average compensation, multiplied by the number of his years of credited service in excess of twenty-five (25) years, not to exceed ten percent (10%).

(c) However, the retirement allowance, as to a member or his survivors eligible to receive social security payments in connection with his employment for an employer, shall be reduced by fifty percent (50%) of the amount of

such social security payment.

(d) In no event may a member's retirement allowance exceed sixty percent (60%) of his final average compensation, nor may his service retirement allowance be less than three hundred dollars ($300) per month. As to a volunteer fireman there shall be no minimum retirement allowance and the maximum retirement allowance as to him may not exceed seventy-five dollars ($75) per month.

(16) "Employer annuity" means that portion of a member's retirement allowance which, together with his member annuity, comprises his retirement allowance.

(17) "Member annuity" means that portion of a member's retirement allowance which is the actuarial equivalent of his member contributions.

(18) "Minimum retirement date" means, as to a member, the first day of the month coinciding with (or immediately following, if none coincides with) the date on which he attains both age fifty (50) or older and completes twenty (20) or more years of credited service.

(19) "Normal retirement date" means: (a) as to a member who is a fireman or police officer, the first day of the month coinciding with (or immediately following, if none coincides with) the date on which he attains both age fifty (50) or older and completes twenty (20) or more years of credited service,

(b) as to all other members, the first day of the month coinciding with (or immediately following, if none coincides with) the date on which he attains both age fifty-five (55) or older and completes twenty-five (25) or more years of credited service.

(20) "Mandatory retirement date" means, as to a member who is not an elected sheriff or appointed undersheriff, the first day of the month coinciding with (or immediately following, if none coincides with) the date on which he attains age sixty-five (65). As to an elected sheriff or appointed undersheriff, there shall be no mandatory retirement date.

(21) "Retirement date" means the date as of which retirement, disability, or survivor benefits commence as to or on behalf of a member.

(22) "Vesting percentage" means, as to a member's service retirement allowance, as of any specified date, a percentage based on the number of his years of credited service determined in accordance with the table below:

Complete Years of Service	Vesting Percentage
0-9	0%
10	25%
11	30%
12	35%
13	40%
14	45%
15	50%
16	60%
17	70%
18	80%
19	90%
20 or more	100%

However, an active member's vesting percentage shall be one hundred percent (100%) on and subsequent to the earliest of (a) his attainment of age 65, (b) the date on which he becomes totally and permanently disabled, or (c) the date of his death.

(23) "Totally and permanently disabled" means, as to a member, that the board, upon certification by a duly licensed and practicing physician, has determined that his disability is of such a nature as to impair permanently his ability or capacity to discharge the duties normally required of his occupation or position. Such certification is a necessary, but not necessarily sufficient, condition for a determination of disability by the board.

Section 3. Consolidated retirement system established. A retirement system is hereby established for public employees in the hazardous occupations of fire protection and law enforcement.

Section 4. Eligibility for active membership. (1) An employee of an employer shall become an active member under the plan (except as to an employee who declined coverage under the prior plan) on the date of his employment by an employer or on the effective date of this act if so employed on such date. Upon becoming eligible for membership he shall complete such forms and furnish such proof as may be required by the board.

(2) No member is eligible to be covered under any other mandatory retirement plan to which an employer is required to contribute on his behalf, other than the Federal Social Security Act, while he is eligible to be covered hereunder.

(3) No duplication of benefits shall occur, as to a member, by reason of more than one period as an active member.

Section 5. Inactive membership. (1) An active member shall become an inactive member upon the occurrence of the earlier of (a) or (b) below:

(a) the date he ceases to be employed by an employer and receives entitlement to a retirement allowance;

(b) the date of commencement of an approved absence from active work for an employer of a substantial duration.

(2) An inactive member shall again become an active member on the day he returns to active work for an employer. Upon again becoming an active member his retirement

allowance, if any, shall cease being paid to him until he again becomes an inactive member.

Section 6. Cessation of membership. A member shall cease to be a member upon the occurrence of the earliest of (1), (2), or (3) below:

(1) the date of his termination of employment when his vesting percentage is zero percent (0%);

(2) the date he withdraws his member contributions in lieu of all other benefits under the plan;

(3) the date of his death.

Section 7. Employer contributions and funding sources. (1) Employer contributions shall be paid to the administrator (not less often than monthly) who shall, as soon as practicable after their receipt, deposit them with the state treasurer.

(2) The state of Montana shall make its contributions:

(a) on behalf of members who are highway patrolmen through the highway patrol bureau out of the moneys collected as motor vehicle driver's license fees;

(b) on behalf of members who are game wardens through the fish and game commission out of the Montana fish and game moneys in the earmarked revenue fund;

(c) on behalf of members who are firemen through the state auditor out of license fees on insurance risks as enumerated below; and

(d) on behalf of members who are police officers through the state auditor out of the premium tax on insurance risks for motor vehicle physical damage, property damage, or bodily injury. Such payments shall be made from the gross premium tax after deduction for cancellations and returned premiums.

(3) The insurance risk license fees from which contributions from the state of Montana shall be made on behalf of firemen are:

(a) insurance of houses, buildings, and all other kinds of property against loss or damage by fire or other casualty;

(b) all kinds of insurance on goods, merchandise, or other property in the course of transportation, whether on land, or water, or air;

(c) insurance against loss or damage to motor vehicles resulting from accident, collision, or marine and inland navigation and transportation perils;

(d) insurance of growing crops against loss or damage resulting from hail or the elements;

(e) insurance against loss or damage by water to any goods or premises arising from the breakage or leakage of sprinklers, pumps or other apparatus;

(f) insurance against loss or legal liability for loss because of damage to property caused by the use of teams or

vehicles whether by accident or collision or by explosion of any engine or tank or boiler or pipe or tire of any vehicle, and

(g) insurance against theft of the whole or any part of any vehicle.

(4) The various counties of Montana shall make their contribution of behalf of members who are sheriffs, undersheriffs, and deputy sheriffs (heretofore and hereinafter referred to collectively as "sheriffs") through the county treasurer out of the general taxation authority of the county.

(5) The various cities of Montana shall make their contributions on behalf of members who are firemen or police officers through the city treasurer out of the tax levy on taxable property within the limits of said city.

(6) The employer's contribution shall be as specified below:

Contributor	Firemen	Police Officers	Highway Patrolmen	Sheriffs	Game Wardens
State of Montana	10.00%	10.00%	18.94%	N/A	16.52%
Counties	N/A	N/A	N/A	11.01%	N/A
Cities	*	*	N/A	N/A	N/A

(a) The contribution of a city on behalf of an active member for whom it is required to contribute shall be eleven

percent (11%), plus an additional percentage of such active member's monthly compensation required to amortize its excess liability on the effective date of this act over a period of forty (40) years in accordance with the table in (b) below.

	Firemen		Police Officers	
	Excess	Amortization	Excess	Amortization
City	Liability	Percentage	Liability	Percentage
Anaconda	$235,892	4.68%	$307,268	8.42%
Baker	N/A	N/A	-0-	-0-
Billings	914,110	3.06%	88,047	2.96%
Bozeman	89,737	1.53%	129,380	2.19%
Butte	915,603	6.91%	998,266	10.24%
Columbia Falls	N/A	N/A	-0-	-0-
Cut Bank	N/A	N/A	-0-	-0-
Dillon	N/A	N/A	55,274	3.38%
Glasgow	N/A	N/A	-0-	-0-
Glendive	131,003	5.03%	-0-	-0-
Great Falls	1,459,933	5,86%	352,396	1.84%
Havre	174,014	4.53%	169,270	4.50%
Helena	275,321	3.45%	599,451	10.04%
Kalispell	265,216	5.18%	117,611	2.36%
Lewistown	75,090	4.31%	-0-	-0-
Livingston	-0-	-0-	113,160	5,38%
Miles City	245,217	7.00%	213,371	6.70%
Missoula	547,804	4.24%	790,160	6.13%
Red Lodge	N/A	N/A	64,002	9.17%
Whitefish	N/A	N/A	-0-	-0-

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Section 8. Member Contributions. Active members are required to contribute seven percent (7%) of their monthly compensation. Such contributions shall be made by payroll withholding and be transmitted by the employer to the administrator (not less often than monthly) who shall, as soon as practicable after their receipt, deposit them with the state treasurer. A member shall be fully vested in his member contributions at all times and may, at his discretion, withdraw the full amount of his member contributions upon his termination of employment and forfeit all rights and interest with respect to any benefits which may otherwise become payable under the plan.

Section 9. Reinstatement after withdrawal of member contributions -- redeposit of amounts withdrawn. (1) A member may redeposit in the fund, in one (1) sum or in installments (not to exceed twelve (12) monthly or twenty-four (24) semi-monthly installments), an amount equal to that which was withdrawn as his member contributions, plus an amount equal to the interest which would have been credited to his account had he not withdrawn his member contributions upon his cessation of membership. In the event the member makes the redeposit specified above, his

credited service shall be reinstated.

(2) If an active member, upon again becoming eligible to be covered hereunder, does not elect to redeposit the amount specified above, he shall forfeit his credit for credited service for the period attributable to his member contributions withdrawn.

Section 10. Other moneys credited as employer contributions. All gifts, bequests or emoluments paid or given to an employer or member due to extraordinary service or otherwise, except when specifically allowed to be retained by the member by an appropriate authority of his employer, and all moneys withheld from the monthly compensation of a member for violation of the rules of his employer shall be paid to the administrator, who shall credit them to the fund and, as soon as practicable after their receipt, deposit them with the state treasurer. Such amounts are employer contributions, but shall be in addition to the amounts required by section 7.

Section 11. Application for service retirement. On or after a member's minimum retirement date, but prior to his mandatory retirement date, he may retire on a service retirement allowance by making written application to the board, not less than thirty (30) days, nor more than ninety (90) days from his elected retirement date. The application shall state his elected retirement date.

Section 12. Application for disability retirement -- amount of disability retirement allowance. (1) In the event a member is determined by the board to be totally and permanently disabled, regardless of his length of service, the member shall be entitled to a disability retirement allowance commencing as of the first day of the month coinciding with (or immediately following, if none coincides with) the date on which he became totally and permanently disabled. The amount of such disability retirement allowance shall be equal to the greater of: (a) fifty percent (50%) of his final average compensation, or (b) his accrued retirement allowance, reduced by the amount (not to exceed seventy-five percent (75%) of the allowance prior to such reduction) by which such inactive member's annual income from his employment, if any, exceeds the annual compensation which he would have otherwise been paid had he remained in the service of the employer at the same position, had his disability retirement not occurred.

(2) The three hundred dollar ($300) minimum retirement allowance shall apply only to a disabled member's retirement allowance prior to its reduction for excessive earned income prior to his normal retirement date.

(3) On and after a disabled members' normal retirement date the reduction of his disability retirement allowance due to excessive earned income shall cease to apply and his

disability retirement allowance shall be redetermined in accordance with the preceding provisions of this section.

Section 13. Reinstatement upon recovery from total and permanent disability. If an inactive member is determined by the board to no longer be totally and permanently disabled, his disability retirement allowance shall cease as of such date of determination and the member shall be so notified by the board. If such inactive member again becomes an active member by returning to active work for an employer within thirty (30) days following receipt of such notice, he shall be considered to have been continuously employed during the term of his disability. If such inactive member fails to become an active member by returning to active work for an employer within thirty (30) days following receipt of such notice, his termination of employment shall be considered to have occurred as of his disability retirement date and the retirement allowance, if any, to which he may become entitled on his service retirement shall be redetermined in accordance with the applicable provisions hereof.

Section 14. Termination of employment prior to retirement. (1) Upon termination of employment of an active member when his vesting percentage is zero percent (0%), he shall withdraw the amount of his member contributions standing to his credit in lieu of all other benefits under

the plan.

(2) Upon termination of employment of an active member prior to his minimum retirement date when his vesting percentage is greater than zero percent (0%), he shall be entitled to elect to receive either:

(a) the amount of his member contributions standing to his credit in lieu of all other benefits under the plan, or

(b) a benefit, deferred to his normal retirement date assuming he had remained in service with an employer to fulfill the service requirement for normal retirement, in an amount equal to his vested accrued retirement allowance on the date of his termination of employment.

Section 15. Retirement allowances payable monthly. The retirement allowances granted under the provisions of this act shall be paid in monthly installments and shall not be increased nor decreased, except as specifically provided herein, nor be repealed or revoked unless by an official act of the legislature of the state of Montana.

Section 16. Retirement allowance -- mode of payment. A member's retirement allowance shall be paid, first to the member during his lifetime and, upon his death, to his legal spouse, if living, until the date of her death or remarriage; then to the legally appointed or acting guardian of his minor or incompetent child or children, if any, for their equal benefit, until the date the youngest of such

children attains age eighteen (18). Provided, however, that if any child or children of a member is mentally or physically disabled to the extent he is unable to provide for his own welfare, such member's retirement allowance shall not be discontinued as to that child or children during his lifetime so long as such disability continues to so incapacitate the child to such extent.

Section 17. Death benefits before retirement. (1) Upon the death of an active member, his survivors (as defined in section 16) shall be entitled to a retirement allowance equal to the greater of: (a) fifty percent (50%) of his final average compensation or (b) his accrued retirement allowance as of the date of his death.

(2) Upon the death of a vested inactive member prior to his retirement date, his survivors (as defined in section 16) shall be entitled to a retirement allowance, commencing on the member's normal retirement date. The amount of benefit shall be equal to the member's vested accrued retirement allowance.

Section 18. Death benefits after retirement. Upon the death of a member receiving a retirement allowance, his survivors (as defined in section 16) shall be entitled to a retirement allowance equal to the retirement allowance the member was entitled to receive as of the day preceding the date of his death. As to a member who was entitled to a

disability retirement allowance on such date, his retirement allowance shall be determined wixbout rgard to excessive earned income, if any.

Section 19. Burial benefit. Upon the death of an active, retired or disabled member a lump-sum payment in the amount of one thousand dollars ($1,000) shall be paid to the member's estate for the purpose of defraying the expenses of the member's death.

Section 20. Retirement benefits exempt from state or municipal tax. Any money received as a retirement allowance in accordance with the provisions of this act is exempt from any state or municipal tax.

Section 21. Rights to benefits unassignable. To the extent permitted by law, none of the benefits payable hereunder are subject to the claims of any creditor of any member, beneficiary or survivor, nor shall the same be subject to attachment, garnishment, or other legal or equitable process by any creditor of a member, beneficiary, or survivor, nor shall any member, beneficiary or survivor have any right to allienate, anticipate, commute, pledge, encumber, assign or sell any of such benefits.

Section 22. Establishment of administrative retirement board. (1) An administrative retirement board is hereby established to administer, interpret, and enforce the provisions of the plan comprising this act. The board

shall, from time to time, establish rules for the administration, interpretation and enforcement of the plan and adopt rules governing its procedures which it may consider appropriate and which are not inconsistent herewith. Such rules and procedures shall be uniformly applicable to all members. Once in each fiscal year the board shall establish a rate of interest to be credited to each member contribution account.

(2) The governor of the state of Montana shall appoint five (5) persons to the board. Initial terms of appointment shall be for periods of one (1), two (2), three (3), four (4), and five (5) years respectively. Subsequent terms of appointment shall be made in the same manner as the original appointments and shall be for a period of five (5) years.

(3) At all times the board shall consist of one (1) representative from the membership of the firemen, one (1) representative from the membership of the police officers, one (1) representative from the combined memberships of the game wardens, highway patrolmen and sheriffs, and two (2) representatives from the public at large. All representatives shall serve until their resignation or the expiration of their term in office. In the event a representative resigns prior to the expiration of his term, a new representative shall be appointed for the balance of such term. Representatives shall be reimbursed for their

reasonable expenses incurred as a result of their service on the board, plus a per diem allowance of thirty dollars ($30) per day. The board shall meet not less often than once in each fiscal quarter.

Section 23. Retirement accounts created -- state treasurer to be custodian of funds -- administration and investment by department of administration. (1) On the effective date of this act, the administrator shall create an account to be entitled and maintained on behalf of the "Retirement system for public employees in the hazardous occupations of fire protection and law enforcement", of which the state treasurer is to be the custodian. The state treasurer shall respond to the exclusive administrative control of the board with respect to such account. The administrator shall establish and maintain subaccounts within this account on behalf of each of the five (5) member classifications defined herein; and within each subaccount shall be established and maintained an account for each member and employer. All monies received under this plan shall be credited to the appropriate accounts created herein.

(2) Except as may be otherwise provided in this act, the department of administration, through the administrator and the board of investments, shall administer, handle, deal with, invest, account for, and treat the funds deposited

through it under this act in accordance with the rules dealing with the public employees retirement system, insofar as such rules are not inconsistent with those promulgated and adopted by the board. The funds of all employers and members making contributions through the department of administration under this act may be commingled for investment purposes.

Section 24. Transfers from prior plans. All funds and obligations constituting the assets and liabilities of the prior plans, regardless of in what form or by whom held, shall be transferred to the accounts created by this act. The board shall ascertain the amount or amounts to be apportioned to each account upon the passage of this act and the state treasurer shall transfer such amounts to the appropriate accounts on the effective date. The state examiner shall audit each such transfer of funds.

Section 25. Benefits to members of prior plans. (1) All provisions of this plan shall become effective as to a member whose retirement date occurred prior to the effective date of this act, except the amount and mode of payment of such member's retirement allowance will remain unchanged, subject only to the minimum retirement allowance of three hundred dollars ($300).

(2) This act may not decrease the benefits of a member under a prior plan. All benefits shall be determined by the

board.

Section 26. Actuarial valuation. The board shall engage the services of a qualified actuary to conduct an actuarial valuation of the plans in each odd-numbered year. Such actuarial valuation shall be completed by October 1 of each year, and shall include the actuary's determination of the financial condition of the plan and the level annual contribution required to maintain the plan on an actuarially sound basis. A qualified actuary is one who is a member of the American academy of actuaries. In each fiscal year in which an actuarial valuation is prepared, the board shall submit to the state auditor a request for payment of the reasonable charges incurred in securing the valuation and the state auditor shall make payment to the actuary designated by the request.

Section 27. Administrative expenses. The expense of administration of this act, exclusive of amounts required to be paid as benefits to or on behalf of a member hereunder, shall be borne by the state of Montana and shall be in addition to the amounts required of it as contributions.

Section 28. Legislative review. The legislature shall periodically review the costs and benefits under this act to assure itself that such costs and benefits are consistent with its intent.

Section 29. Taxing authority of employers. For the

purpose of making contributions required of a city under this act and when the demand for deposits of such contributions required to be made by it cannot be met within the general taxing authority of that city, then the appropriate authority of such city may levy any additional tax not to exceed four (4) mills until the general taxing authority is sufficient to meet the demand.

Section 30. Cities under second class may come within provisions of act by passing ordinance and making levy. Cities other than those in the first and second class may come within the provisions of this act by passing an ordinance of their desire to come within the provisions of the act and making the tax levy herein provided for. Such cities who had passed such an ordinance and levied such a tax with respect to a prior plan shall be required to continue their participation hereunder.

Section 31. False statements or falsification of records illegal -- penalties. (1) No person may knowingly make any false statement or permit to be falsified any records of this retirement system in an attempt to defraud the system.

(2) Should any change in records fraudulently made or any mistake in records inadvertently made result in any member, survivor, or beneficiary receiving more or less than said person whould have been entitled to had the records

been correct, then, on the discovery of the error, the board shall correct the error and adjust the payments which are made to the member, survivor, or beneficiary in an equitable manner.

(3) Any person violating any of the provisions of subsection (1) of this section shall be guilty of a misdemeanor, and upon conviction shall be fined not exceeding one thousand dollars ($1,000) or imprisoned in the county jail not exceeding one (1) year, or both.

Section 32. Board may revoke, refuse, or suspend a member's annuity for injury or death due to wrongful conduct. Where the illness or injury causing a member to retire, or where the death of the member, or a member to be retired, is directly and proximately caused by the member's immoral or intemperate conduct or gross negligence, the board may refuse, revoke, or suspend disbursement of the employer annuity.

Section 33. Payments are in addition to those provided by Workmen's Compensation Act. All payments provided for in this act are in addition to any other benefits now or hereafter provided for under the Workmen's Compensation Act.

Section 34. Rules of transfer of member contributions account to employer's account. The board may, in its discretion, transfer a member's contributions account to the employer's account if the member's contribution account has

been dormant for a period of ten (10) years, provided that no right of the member may be jeopardized by such transfer and the member's contribution account shall be transferred to the member's name upon subsequent reentry to membership.

Section 35. Applicability of act. Sections 11-1834 through 11-1836, 11-1910 through 11-1916, 11-1919 through 11-1927, 11-1927.1, 11-1928 through 11-1930, R.C.M. 1947, do not apply to employers covered under the retirement system for public employees in the hazardous occupations of fire protection and law enforcement.

Section 36. Severability. If a part of this act is invalid, all valid parts that are severable from the invalid part remain in effect. If a part of this act is invalid in one or more of its applications, the part remains in effect in all valid applications that are severable from the invalid applications.

Section 37. Sections 11-1821, 11-1823 through 11-1830, 11-1838 through 11-1850, 31-201, 31-204 through 31-211, 31-213 through 31-230, 68-1401, 68-1402, 68-1405 through 68-1429, 68-2601 through 68-2629, and 82A-210.1, R.C.M. 1947 are repealed.

-End-

HENDRICKSON, BIRD & McKOSKEY, INC.

Actuaries • Pension Consultants

Jerome J. McKoskey,
Fellow of the Society of Actuaries
Philip A. Bird, Jr.,
Chartered Life Underwriter
Alton P. Hendrickson,
Associate of the Society of Actuaries

Edward V. Eve,
Pension Analyst

1212 Helena Avenue
Helena, Montana 59601
(406) 442-5141

January 6, 1975

Legislative Council
Capitol Building
Helena, Montana 59601

Dear Sirs:

Attached is our draft of an act to establish the RETIREMENT SYSTEM FOR PUBLIC EMPLOYEES IN THE HAZARDOUS OCCUPATIONS OF FIRE PROTECTION AND LAW ENFORCEMENT. This draft implements all of the recommendations contained in our report of November 15, 1974. The intent of this act is to consolidate the following retirement systems, as provided in Senate Bill No. 493:

1. Municipal Police Officers Retirement Systems.
2. Firemen's Relief Association Disability and Pension System.
3. Game Warden's Retirement System.
4. Highway Patrolmen's Retirement System.
5. Sheriff's Retirement System.

It has come to our attention that the game wardens are currently covered under Social Security and, further, that other members might elect to come under this coverage in the future. Accordingly, we recommend that all benefits payable under this act be offset by one-half of the amount of benefits which any member receives from Social Security as a result of his public employment. This recommendation is included in our draft of the act.

It was a pleasure working with the members of the Legislative Council. We gratefully acknowledge the cooperation and assistance provided by its staff.

Sincerely,

Alton P Hendrickson

Alton P. Hendrickson, A.S.A.

Jerome J. McKoskey

Jerome J. McKoskey, F.S.A.

APH/mrc